

THE QUARTERLY REVIEW.

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Art. I.—THE PANAMA CANAL AND MARITIME COMMERCE.

1. *Report of the Isthmian Canal Commission, 1899-1901; 57th Congress, 1st Session.* Senate Document No. 54. Washington, 1901.
2. *Supplementary Report of the Isthmian Canal Commission; 57th Congress, 1st Session.* Senate Document No. 123. Washington, 1902.
3. *Interoceanic Communication on the Western Continent.* By Colonel G. E. Church. 'The Geographical Journal,' vol. xix, No. 3. London: Royal Geographical Society, 1902.
4. *The Panama Canal.* By J. C. Rodrigues. London: Sampson Low, 1885.
5. *The Panama Canal Question: a plea for Columbia.* By Abelardo Aldanha, Consul of Columbia. Cardiff: Western Mail Office, 1903.
6. *The Inter-oceanic Canal of Nicaragua, its history, &c. Nicaragua Canal, an account of explorations and surveys, &c. Nicaragua Canal, report on prospective tonnage of traffic.* Pamphlets published by the Nicaragua Canal Construction Company, New York, 1890.
And other works.

FROM the Arctic Ocean to Cape Horn a practically continuous mountain barrier separates the Atlantic from the Pacific. For four hundred years civilised man has been trying to find a way through, or to force a way over, that barrier. Across the northern continent the barrier has been surmounted by several railways; and in the southern continent the iron road is even now steadily ascending the Andes. But the 'secret of the

Strait,' which the Spaniards sent out countless *conquistadores* to discover at the Isthmus, has never been discovered; and therefore America is now piercing Panama, as Lesseps pierced Suez. But with this difference—Lesseps practically restored a waterway between the Mediterranean and the Red Sea that Rameses had cut and the Pharaohs had used ages ago; at Panama American engineers are cutting a way through a tropical mountain region which has never been opened before, which Lesseps expended sixty millions on failing to penetrate, and which many engineers have declared it to be impossible to cut. In modern mechanics, however, the word 'impossible' has no place; and within a few years the siren of the 10,000-ton liner will hoot over the Culebra range. The prospect of the realisation of the dream of ages is, indeed, so near that it behoves us as a maritime nation and a commercial people to consider, even now, what this waterway means, and what effect it will have upon our shipping and sea commerce. It is no longer an engineering speculation by French financiers that we have to contemplate, but a definite national enterprise undertaken by the most practical nation in the world.

One hundred years before Le Maire and Schouten rounded Cape Horn, Pedrarias Davila was exploiting and devastating the Castilla del Oro, which we now call the Isthmus of Panama. The town of that name, when the Spaniards reached the Isthmus, was but a small hamlet of mud-huts on the shore of the Pacific. This fishing hamlet the Spaniards converted into their most important city in the west. They built a wall round it, guarded it with forts, and made it the chief storehouse of the treasures they collected for shipment to Spain. It has to-day a population of 25,000 inhabitants; and its port is visited annually by many hundreds of vessels. It is a city close upon four hundred years old; whereas Colon, on the Atlantic side of the Isthmus, was founded only in the middle of the last century. The Isthmus itself is about 400 miles long and contains an area of 31,570 square miles, bounded on the north by Costa Rica, on the south by the Atrato River, on the west by the Pacific, and on the east by the Caribbean Sea. There is little doubt that once upon a time the Caribbean Sea and the

Pacific Ocean were connected, and that the high lands of Panama, Costa Rica, and Nicaragua were then islands in a mid-ocean archipelago. This geological archipelago is now, so far as Panama is concerned, a dense tropical jungle, scored by torrential rivers, and reputed to be endowed with the worst climate in the world. The climate, however, is not so bad as has been represented and the immense death-rate of the Lesseps period was due to the malarial influences set free by the cutting of the surface soil, and to the improvidence of the invading whites. On the Isthmus the summit-level of the mountain barrier is only 300 feet above the sea level, and from its slopes 326 rivers flow into the Pacific and 149 into the Atlantic. In the days of Pedrarias Davila the Isthmus had an estimated population of 2,000,000 Indians. It has now a mixed population of some 300,000 Spaniards, Indians, negroes, Europeans, and Americans.

The discovery of the Atlantic coast-line from Florida northwards was the result of the search for the western passage to the Indian Ocean; and from that coast-line are now streaming down the capital and the material, the machinery and the brains, for the construction of the waterway which the Spaniards were unable to discover as the gift of Nature. Once again is Panama to be made the great highway of trade between the Atlantic and the Pacific, as when the Spanish galleons landed their cargoes for the west coast at Puertobello, near what is now Colon, and waited there for the produce of Chile and Peru; and as when the multifarious crowd of gold-seekers and their followers, panting after the treasures of California, found the quickest route to the goldfields along the track which the Spaniards had made across the tropical desert—'eighteen leagues of misery and curses.'

It is as unnecessary to recall here all the efforts that have been made towards the canalisation of Central America, by way of Panama or Nicaragua, or otherwise, as it is to re-tell the deplorable story of the Lesseps project. Long before the catastrophe, Mr Rodrigues showed, though no Frenchman and few Englishmen hearkened to him at the time, how 'Le Grand Français' was either fooled or fooling, or both; how he was forcing on a scheme which had never been properly studied, and

which had been condemned by the competent few who had studied it. The bubble burst in 1888; and there the Lesseps venture ended.

For six years afterwards there was stagnation at the Isthmus. But in 1894 was formed 'La Compagnie Nouvelle du Canal de Panama,' with a capital of 65,000,000 francs, or say 2,600,000*l*. This company was established just in time to prevent the expiration of the concession of 15,000 hectares of land by the Government of Colombia to the first company. During the years 1895-7 the New Company actively continued the work begun by Lesseps. More than this, while the Nicaragua route was being discussed, the company was making exploratory cuttings along the whole of the Panama route, thoroughly testing the nature of the ground, so scientifically coping with the climatic conditions as to reduce the sick-list to an average of 3 per cent. of the men employed, and planning out, under a sort of international staff of experts, a new and feasible scheme of construction. The result of the prolonged examination by this technical body of advisers was the decision that the two oceans should be connected by a canal of six reaches, divided by locks. The idea of a dead-level, tide-water canal was wholly abandoned. The De Lesseps Company had constructed, from the Atlantic side, sixteen miles of canal, with a channel 30 metres wide, and of a depth of 9 metres below the level of the sea. At the central part of the Isthmus the bottom of the canal will have to be 20·75 metres above the level of the sea.

The chief problems on the Panama route have always been how to deal with the Chagres River, and the water supply for the central high-level reaches. La Compagnie Nouvelle solved both problems by designing a huge dam, 289 metres long and 50 metres high, in a rocky gorge twelve miles to the north-east of the line of the canal. Behind this dam, by the storage of the flood waters, will be formed a large lake, which will be ready to supply the canal as required. A feed-water conduit along the high ground parallel to the river will capture the floods and convey them to the lake. On each slope there will be eight sets of locks. All this La Compagnie Nouvelle de Panama demonstrated should be done and could be done.

While the Nicaragua Company was endeavouring to persuade Congress to take up its project—and it probably would have succeeded, but for the war with Spain, which taxed the energies of the nation—some American capitalists were quietly organising the Panama Canal Company of America to acquire all the rights, privileges, properties, and concessions of La Compagnie Nouvelle du Canal de Panama. In March 1899, Congress passed an Act empowering the President 'to make full and complete investigations of the Isthmus of Panama, with a view to the construction of a canal by the United States across the same to connect the Atlantic and Pacific Oceans,' and particularly 'to investigate the two routes known respectively as the Nicaragua route and the Panama route,' in order to determine 'the most practicable and feasible route for such canal.' This Commission was appointed in June 1899, with Rear-Admiral Walker, U.S.N., retired, as its president. It issued a preliminary report in 1900, but continued its labours until the close of 1901.

On the opening of the United States Congress, on December 3, 1901, President Roosevelt sent to the Senate the second Hay-Pauncefote Convention, superseding the Clayton-Bulwer Treaty of 1850, and he also sent to Congress the final report of the Isthmian Canal Commission. To the reception of the Convention by the Senate it is now unnecessary to refer; the treaty was eventually ratified. The report of the Isthmian Canal Commission narrowed to a choice between Nicaragua and Panama the determination of 'the most feasible and practicable route' for a ship canal across the Central American Isthmus, and reached the conclusion that "the most practicable and feasible route" for an Isthmian canal, to be "under the control, management, and ownership of the United States," is that known as the Nicaragua route.' During the progress of the Commission, Admiral Walker, its president, and M. Hutin, the director-general of the New Panama Company, frequently met and corresponded with reference to the suggested acquisition by the United States of the company's property and rights. M. Hutin suggested for discussion an amount equivalent to 22,500,000*l.*; and this the Commission treated as a definitive offer. The Commission submitted a plan for the completion of the Panama enterprise, and formulated

an estimate of the work already accomplished; the worth of which, with the assets of the company, it valued at about 8,000,000*L*.

The shareholders of the New Panama Company, at their annual general meeting in Paris, on December 21, 1901, decided that, whatever the figure might be, there was no practical alternative to the terms offered by America; and the directors telegraphed to Washington offering to sell all the company's concessions, canal works already executed, plans, plant, land, buildings, and Panama Railroad stock, for the sum suggested by the Commission. On the receipt of this offer the Commission submitted a supplementary report, recommending the adoption of the Panama route. This document was transmitted to Congress on January 20, 1902; and, in spite of the opposition of the advocates of the Nicaragua scheme, and of the 'railroad interests,' who are against any Isthmian waterway whatever, it was adopted.

In their report of 1901 the Isthmian Canal Commissioners say:—

'The cost of constructing a canal by the Nicaragua route and of completing the Panama Canal, without including the cost of acquiring the concessions from the different Governments, is estimated as follows: Nicaragua, \$189,864,062; Panama, \$144,233,358. For a proper comparison there must be added to the latter the cost of acquiring the rights and property of the New Panama Canal Company. This Commission has estimated the value of these, in the project recommended by it, at \$40,000,000. In order to exercise the rights necessary for the construction of the canal, and for its management after completion, the United States should acquire control of a strip of territory from sea to sea sufficient in area for the convenient and efficient accomplishment of those purposes. Measures must also be taken to protect the line from unlawful acts of all kinds, to ensure sanitary control, and to render police jurisdiction effective. . . . An agreement with the Panama Canal Company to surrender or transfer its concessions must include a sale of its canal property and unfinished work; and the Commission undertook, soon after its organisation, to ascertain upon what terms this could be accomplished. The total amount for which the company offers to sell and transfer its canal property to the United States is \$109,141,500. This, added to the cost of completing the work, makes the whole cost of a canal by the Panama

route \$253,374,858, while the cost by the Nicaragua route is \$189,864,062, a difference of \$63,510,796 in favour of the Nicaragua route. . . . There are certain physical advantages, such as a shorter canal line, a more complete knowledge of the country through which it passes, and lower cost of maintenance and operation, in favour of the Panama route; but the price fixed by the Panama Canal Company for a sale of its property and franchises is so unreasonable that its acceptance cannot be recommended by this Commission. After considering all the facts developed by the investigations made by the Commission, and the actual situation as it now stands, and having in view the terms offered by the New Panama Canal Company, this Commission is of opinion that "the most practicable and feasible route" for an Isthmian canal, to be "under the control, management, and ownership of the United States," is that known as the Nicaragua route.' (Report, pp. 261-263.)

The report of 1902 adopts a different view.

'The advantages of the two canal routes have been restated according to the findings of the former report. There has been no change in the views of the Commission with reference to any of these conclusions then reached; but the new proposition submitted by the New Panama Canal Company makes a reduction of nearly \$70,000,000 in the cost of a canal across the Isthmus of Panama, according to the estimates contained in the former report, and with this reduction a canal can be there constructed for more than \$5,500,000 less than through Nicaragua. The unreasonable sum asked for the property and rights of the New Panama Canal Company when the Commission reached its former conclusion overbalanced the advantages of that route; but, now that the estimates by the two routes have been nearly equalised, the Commission can form its judgment by weighing the advantages of each and determining which is the more practicable and feasible. . . . After considering the changed conditions that now exist, and all the facts and circumstances upon which its present judgment must be based, the Commission is of the opinion that "the most practicable and feasible route" for an Isthmian canal, to be "under the control, management, and ownership of the United States," is that known as the Panama route.' (Sup. Report, pp. 9, 10.)

Then came that remarkable chapter in international history—the negotiation and conclusion of the so-called Hay-Harran Treaty with Columbia, which Columbia

repudiated in the hope of extracting better terms; the secession of Panama from the Columbian Confederation; the immediate recognition by the United States of the independence of the new Republic of Panama; and the prompt conclusion of a treaty with that Republic, securing a perpetual lease of the strip of land necessary for the waterway, and other rights, to the United States.

The manifesto of the United States Government on the Panama question, issued by Secretary Hay, declared that the action of President Roosevelt in Panama was not only in strict accordance with the principles of justice and equity, and in line with all the best precedents of the States' public policy, but that it was the only course that could have been taken in compliance with treaty rights and obligations. It reviewed the treaty of 1846, in which New Granada guaranteed free transit to the Government or citizens of the United States, by any modes of communication existing or to be thereafter constructed; in return for which the United States guaranteed the neutrality of the Isthmus, in order that transit should remain uninterrupted, and the rights, sovereignty, and property of New Granada in the said territory. President Polk's message to Congress accompanying that treaty pointed out the importance to the United States of the concession which, it was contended, has subsequently 'become transcendent through the acquisition of Hawaii and the Philippines.' The right of the United States to control the transit of the Isthmus has not, it was affirmed, been forfeited by laxity either in the assertion of rights or in the performance of duty under the treaty. The Hay-Harran Treaty was framed to carry out the plans of both countries.

The Hay-Harran Treaty with Columbia lapsed; and in its place was concluded with the new Republic of Panama the Hay-Bunau Varilla Treaty. By this treaty Panama cedes to the United States in perpetuity certain lands in the Republic found to be desirable in connexion with the building operations or maintenance of the canal, and also grants to the United States sovereignty over a strip ten miles wide on each side of the canal. Permission is given to the United States to erect police establishments at the terminals. The cities of Panama and Colon are to retain municipal autonomy under the

Republic, so long as they maintain order and sanitation to the satisfaction of the United States. Failure to observe these conditions gives the United States the right to enforce strict compliance with its wishes, and even to use force to compel obedience. Panama has received \$10,000,000 in consideration of these concessions. The treaty further provides that the canal shall be neutral, and open to ships of all nations on even terms.

The United States Government has now actually begun the construction of the Panama Canal. The Commission is in full operation. Field parties have been sent from Washington to Panama to survey particular sections; engineering estimates are being made for different portions of the work; and supplies are being sent for the parties now on the ground. The office at Washington, where maps of the route, diagrams of the sections, and data intended for the field parties are prepared, is in active administration. The construction of the canal is under the direct supervision of the Panama Canal Commission, subject to the control of the Secretary for War, and will so continue until the project is completed. General Davis, an engineer officer, is on the spot, in charge of the entire canal zone, politically and commercially, and of the active construction of the canal.

Under the law, the Panama Canal will be constructed at an expense to the United States of \$130,000,000, for which 2 per cent. bonds will be issued and guaranteed by the United States Government. The preliminary expenditure began at the rate of \$20,000 or \$25,000 a month, and continues to increase monthly as the full force of engineers and their working parties comes into the field. Contracts for the actual digging are met under the law which permits the Secretary of the Treasury to advance up to \$10,000,000 of the entire \$130,000,000 which has been appropriated for the construction of the canal. The Secretary of the Treasury will eventually issue \$130,000,000 of bonds, bearing 2 per cent. interest, the proceeds of which will be used to meet the payments for construction. These bonds will be issued from time to time as the requirements of the work demand; and from the proceeds of them the \$10,000,000 which the secretary is authorised to advance during the calendar year 1904 will be repaid into the treasury. The canal

will not cost the Government of the United States more than \$130,000,000, unless Congress authorises further expenditure on the project. The bonds are simply 2 per cent. bonds guaranteed by the Government of the United States. United States 'Twos' are now receivable as a basis for National Bank circulation, and as security for Government money in National Bank depositaries. The canal bonds will not be so receivable without additional legislation. Bills were introduced in Congress during last session to make them receivable as security for National Bank deposits; and some such Bill will be passed during the coming session of Congress. The tax on these bonds will doubtless be reduced to the tax now paid on 2 per cent. bonds—viz. $\frac{1}{2}$ of 1 per cent.—which will place them on a par with the United States 'Twos.'

The treaty concluded between Great Britain and the United States 'to facilitate the construction of a ship canal to connect the Atlantic and Pacific Oceans,' commonly called the Hay-Pauncefote Treaty, was signed at Washington on November 18, 1901, and ratified by the United States Senate on December 16, 1901. The preamble declares, *inter alia*, that one object is 'to remove any objection which may arise out of the Convention of the 19th April, 1850, commonly called the Clayton-Bulwer Treaty, to the construction of such canal.' After providing that 'the canal may be constructed under the auspices of the Government of the United States . . .; and that, subject to the provisions of the present Treaty, the said Government shall have and enjoy all the rights incident to such construction, as well as the exclusive right of providing for the regulation and management of the canal'; the treaty proceeds to lay down, for the neutralisation of the canal, certain rules 'substantially' the same as those adopted in 1888 for the Suez Canal.

By the Hay-Pauncefote Treaty, then, the canal is to be free to the traffic of all well-disposed people in time of peace; and this is a provision of great importance to all maritime nations. But what about time of war? What will happen to the canal if the United States is engaged in war with another naval Power of the first rank? The command of the canal in time of war will be practically with the Power whose ships command the sea on either side of it. The joint ownership which we should have

had under the provisions of the Clayton-Bulwer Treaty would be no real advantage. We only want the free use of the canal; and in the case of war this free use would depend upon our ability to close or open it. Joint ownership would make us neither stronger nor weaker than when the canal is 'under exclusive American ownership and American control.'

The cutting of the Isthmus—which Sir Thomas Browne, two hundred and fifty years ago, said, 'if policie would permit, were most worthy the attempt, it being but few miles over, and would open a shorter cut unto the East Indies and China'—is at present the most important material question before the commercial world. Naturally, therefore, it is of supreme importance to the greatest of maritime nations; and yet shipping men in this country do not seem to have fully considered what service this waterway is going to do to our sea-carrying trade, or, indeed, whether it is going to do us any service at all. So long as the rivalry between the Nicaragua and the Panama routes continued, there was some excuse for quiescence, though not for apathy, on the subject. But that rivalry is now at an end. Panama has won; and some American engineers contend—what we are not inclined to admit—that the greater ease, safety, and celerity of the Panama passage would alone make that route preferable even at double the cost of that of Nicaragua. We need not now discuss the routes; and, as to costs, what is of vastly more consequence than the outlay on construction is the element of maintenance and operation. It is not the initial cost of the canal that will affect the traffic, but the method and cost of administration. If the process of transit is too slow, if the detention, whatever it is, be made irksome, if the dues are too high, traffic will be repelled. The sea is always open; and the Suez Canal is always available. Therefore, what the administration of the Panama Canal will have to consider is not what rate of dues will afford an adequate return upon the capital expenditure plus the working expenses, but what rate it will pay vessels to give for the use of the route.

Central America is, by its geographical situation, one of the greatest natural barriers to international commerce in the world. To circumnavigate the southern continent

requires an expenditure on ocean transport of many millions per annum. This is not all lost, of course; yet it is impossible not to regard as near akin to waste some of the expenditure of energy and money to convey freight round Cape Horn to the Pacific shores. If any of that expenditure can be saved by the canal, then such portion as can be saved is at present wasted. But we are afraid the saving will not be so much as is supposed. The whole world will, no doubt, benefit by the opening of a maritime canal between the Atlantic and Pacific Oceans; and for the United States it is of vital importance, not merely because of commercial, but also of political considerations. A committee of the Senate, to which, in 1896, had been referred one of the Bills dealing with the construction of a canal across Nicaragua, discussed the opposition offered by some of the transcontinental railroads, and reported:—

‘In competing for the carrying trade that is furnished from Asiatic fields of production, they [the railroads] must ultimately be overwhelmed by the cheaper rates of water transportation through the Suez Canal to our Atlantic ports. The fight is unequal, and they must succumb; and, if they do all the carrying from the Pacific ports, they will still fall into bankruptcy, because their present policy impoverishes the commerce of the Pacific States. Nothing, indeed, can now save some of these railroads, except the filling-up of our Pacific States with a vigorous European immigration. . . . There is not, in fact, any interest in any business enterprise in the United States that would not feel the impulse of this great movement in a new career of commerce and national power and influence, and share in its benefits. We have no undeveloped and prospective advantages, as a commercial people, that compare with those of our Western States, in their virtual command of the trade of the countries bordering upon the Pacific Ocean. To do this work in a manner worthy our opportunities, we must shorten the line of water communication between our Atlantic and Pacific States. If we fail in this, we shall soon occupy a position, as a people, inferior to our kindred in Europe. . . . It is the combination of these powers, through the Nicaragua Canal, that alone can establish that national unity and strength without which the chain of the Rocky Mountains may some day become the boundary between two great rival republics.’

The argument is the same if, in the last sentence, we substitute Panama for Nicaragua.

The problem is not merely concerned with the cost of traversing the Isthmus from sea to sea, but with the total cost of the movement from port to port. According to Mr Lewis M. Haupt, formerly a member of the Canal Commission, who stated in the 'North American Review' for July 1902 his objection to the final report of the Commission, it is a delusion to assert that, because the Panama route is but 49 miles long while the Nicaragua route is 183, the former is the better, since that statement omits entirely the greater length on the sea route by Panama for about three-quarters of the traffic, the presence of the lake and river which compose more than half of the waterway through Nicaragua, and the still more important fact that the general direction of this route lies along the most direct line, while at Panama it is almost at right angles thereto. Moreover, argues Mr Haupt, there is the insuperable meteorological disadvantage attaching to the Panama route, due to position, since the southern route lies in the region of equatorial calms which, without great expense for towage, debar sailing vessels from access to Panama, while the northern route lies in the region of the trade-winds, which also contribute greatly to the salubrity and comfort of this transit-way. He refuses to accept the argument that the sailing vessel is doomed to be superseded by the steamer. The outlook (he says) does not justify such a conclusion, since more than half of the American registered tonnage is sail; and the tendency is towards larger schooner-rigged craft.

'The great cargo capacity and economy of the six-masted and seven-masted vessels of this class, as well as their relative immunity from danger of fire, make them the cheapest known instrument of transportation; and this fact ensures their continued existence, and guarantees them a patronage by all freights not demanding great speed. In a fair wind, however, they readily hold their own with the twelve-knot steamer; and they carry a larger cargo for a given displacement and with less than half the crew.'

Further—

'The rapid increase in the size of fore-and-aft rigged vessels is shown by the trebling of their net tonnage during the decade ending in 1894, and its doubling since that date. To ignore the sailing vessel as a factor in interoceanic transit

would be a serious discrimination against one of our greatest economic possibilities, and would greatly retard the restoration of our merchant marine.' ('North Amer. Rev.,' 1902, p. 131.)

But, owing to the difficulties of navigating the Bay of Panama, hardly any sailing vessels enter or clear there; and the obstacles to the transit of the Isthmus extend through and beyond the bay region as far as the Galapagos Islands on the Equator. It has been reported that, in some instances, sailing vessels have occupied a longer time in beating out of the bay than is required to make the entire trip from New York to San Francisco by Cape Horn. The use of this route by sailers would therefore be attended by a heavy charge for towage a long distance to sea at certain seasons of the year. No estimate for this has been made in calculating the cost of operations. We are not citing Mr Haupt's arguments because we agree with them—on the contrary, we believe that Panama is distinctly the better route, and that the physical disadvantages of the Nicaragua route have been greatly understated—but because they lead up to the question of the sailer as a factor in interoceanic traffic. This a question so directly touched by the canal that we give it full consideration later.

The French consul-general at New Orleans has expressed his belief that a great part of the trade passing through the canal will enter and leave the United States by way of the ports situated on the Gulf of Mexico; and that, while it is unsafe to prophesy any actual falling-off in the prosperity of New York and the other Atlantic coast ports, a great stimulus will be given to the trade of the Gulf ports—New Orleans, Galveston, etc. New Orleans is six hundred miles nearer to Colon, at the entrance to the canal, than is New York; while many of the central states of the Union, west of a line from Chicago to Charleston, are nearer to New Orleans than to New York. A geographical fact which is not generally recognised is that the voyage from New York to Hong Kong is practically the same length eastwards through the Suez Canal as it will be westwards through the Panama Canal. West of Hong Kong the advantage in point of distance will lie with the Suez route; east of Hong Kong the Panama route will have the advantage. In voyages from New York to ports between Singapore

and Shanghai the preference for one route over the other will depend on the amount of the canal tolls. So far as the commerce of the United States is concerned, if New Orleans becomes the great clearing-house for goods passing through the canal, the advantage of distance will rest with the Panama route to a greater extent.

The grounds upon which an enormous ocean traffic is expected to be drawn to the canal are mainly these. A trade route has crossed the Isthmus for centuries; the breaking down of the natural barrier will open the way to the steamer as against both the railway and the sailer; the success of the Suez Canal shows that the opening of the Panama Canal will create new avenues of trade. Too much, however, is built upon these foundations. The railways of the northern continent have drawn away a good deal of the trans-isthmian traffic; and the Panama Canal will not, like the Suez Canal, unite two populous and industrious sections of the world, but will join two wide oceans on which there is little or no intermediate traffic. It is computed that 94 per cent. of the population of the world live north of the latitude of the Panama Isthmus; and the 6 per cent. to the south of it are not remarkable for commercial enterprise. The Suez Canal draws annually ten million tons of traffic between Europe and Asia. Is there any reasonable probability that the Panama Canal will draw any such traffic between the Atlantic and the Pacific basins?

Large hopes are based on the development of South America; and in that vast continent there is, no doubt, an enormous and promising field for human effort—a field to which, perhaps, the yellow races may find a strong attraction in future generations. But, after all, how much of that development can affect the fortunes of the canal? Something like 90 per cent. of the rainfall of South America drains into the Atlantic; and the produce of the countries east of the Andes, while wanted in Europe, finds no market in the countries on the Pacific slope. The chain of the Andes bars the transit of the inland produce from the western ports, which must, therefore, depend for their traffic on the production and consumption of the narrow strip lying between the mountains and the ocean, and extending practically from Panama to southern Chile. The commerce of the west

coast of South America appears gigantic, as measured by the Nicaragua Canal Company, the De Lesseps Canal Company, and the Walker Commission; but the vast total is reached by counting up the entrances and clearances at every port; and almost all the steamers in the trade call at many ports, though they get only a small portion of their cargo at each. To show how misleading this method of measuring traffic tonnage is, one instance will suffice. The imports and exports of Costa Rica through the small port of Punta Arenas amount to about 12,000 tons per annum; but the entrances and clearances of vessels visiting that port to carry that small traffic sum up to a total of 323,000 tons.

Assuming that the canal will be used only by steamers, let us now see the distances, in nautical miles, which have to be traversed on the principal trade routes now open. The following are the measurements of the routes used by steamers, not sailers:—

	Miles.
Plymouth to Panama	4,580
New York "	2,021
New Orleans "	1,420
Panama to Acapulco	1,437
" San Francisco	3,277
" Esquimault	3,840
" Guayaquil	842
" Callao	1,337
" Iquique	1,999
" Valparaiso	2,608
" Punta Arenas (Straits of Magellan)	3,932
" Tahiti	4,530
" Apia	5,739
" Honolulu	4,665

Now let us measure some of the distances on the Pacific side alone.

To the Asiatic Coast and Islands.

	Miles.
San Francisco to Honolulu	2,100
" Yokohama	4,536
" Shanghai	5,550
" Hong Kong	6,086
" Manila	6,254
" Sydney	6,514
" Singapore	7,330
Honolulu to Yokohama	3,400
" Hong Kong	4,901
" Guam	3,337
Guam to Manila	1,506
Manila to Singapore	1,386
Tahiti to Sydney	3,300

The United States Hydrographic Office in 1900 published the tracks, in nautical miles, of full-powered steamships, which Colonel Church compared with the Admiralty chart of 1888. Finding some discrepancies, he adjusted them; and we have adopted his amended figures. From these figures we compile the following comparative tables of the distances from England and America by the Straits of Magellan and by the Cape of Good Hope respectively:—

	From New York.		From Plymouth.	
	By Straits.	By Cape.	By Straits.	By Cape.
	Miles.	Miles.	Miles.	Miles.
To Melbourne . .	12,896	12,670	13,211	11,870
„ Sydney . . .	12,693	13,140	13,008	12,340
„ Wellington . .	11,413	13,710	11,728	12,910
„ Manila . . .	16,815	13,530	17,130	12,736
„ Singapore . .	16,696	12,150	17,011	11,350
„ Hong Kong . .	17,132	13,590	17,447	12,790
„ Shanghai . . .	17,009	14,340	17,324	13,540
„ Yokohama . .	16,284	15,020	16,599	14,220

The next table compares the distances via the Panama Canal and via the Suez Canal:—

	From New York.		From Plymouth.	
	By Panama.	By Suez.	By Panama.	By Suez.
	Miles.	Miles.	Miles.	Miles.
To Melbourne . .	10,016	12,790	12,575	10,670
„ Sydney . . .	9,851	13,320	12,410	11,200
„ Wellington . .	8,533	14,230	11,092	12,110
„ Manila . . .	11,521	11,556	14,080	9,436
„ Singapore . .	12,915	10,170	13,474	8,050
„ Hong Kong . .	11,603	11,610	14,162	9,490
„ Shanghai . . .	11,726	12,360	14,285	10,240
„ Yokohama . .	10,086	13,040	12,645	10,920

A consideration of these tables, which, though only presented as typical, deal with the leading centres of trade on the western side of the Pacific, shows that we must strike out of the prospective Panama traffic the tonnage of all commerce that can find a shorter route. The Panama Canal will not draw the trade between Great Britain and the Commonwealth of Australia, the Philippines, Singapore, Hong Kong, Shanghai, or Yokohama.

It may draw the traffic between Great Britain and New Zealand. It will not draw the traffic between New York and Singapore, but it will draw the traffic between New York and Australia, New Zealand, Shanghai, and Yokohama; and it may attract the traffic between New York and Manila and Hong Kong. The route from Plymouth to Singapore by Suez is 7424 miles shorter, while that by the Cape of Good Hope is 745 miles shorter, than the route by Panama. It is 1725 miles less to Yokohama from Plymouth by Suez than by Panama. No one, of course, would think of taking the traffic of British India and Burma across Panama. Consequently the Panama Canal will practically attract none of the trade between Europe and Asia that at present forms the chief source of revenue of the Suez Canal. Almost all the trade between Great Britain and New Zealand now goes round the Cape. Thus the American canal will confer little benefit on the greater portion of the land area and the greater portion of the population of the globe. For Europe the principal advantage of the canal will be in traffic with the Pacific coasts of North and South America. It is very difficult to estimate what that traffic may become, because of the imperfect character of the records of what it actually is. Few of the ports on the Pacific coast record their imports and exports in quantities; most of them record it only in values.

The Nicaragua Canal Construction Company of New York issued in 1890 an elaborate series of estimates which may be briefly summarised thus. They assumed a measure existing in 1889 of 8,122,093 tons, to which they added 10 per cent. for natural growth up to 1897, and 1,000,000 tons for new business to be developed by the canal. This made up a total of 9,934,302 tons, which they considered to be traffic 'properly belonging to the canal,' and likely to be drawn by it from the total of the commerce within the zone of its attraction if completed in 1897. We are now in 1904, and not within millions of tons of such a total.

Few will disagree with the belief of the Isthmian Canal Commission that the canal will assist a wide range of industries, agricultural, mineral, lumbering, and manufacturing, and will promote the progress of all sections of the United States. The present expenses and delays

in the commercial intercourse of the central, southern, and eastern states of the Union with the Pacific markets, and in the trade of the Pacific states with Europe, are a limitation upon American industries. The more expeditious access to Pacific markets should benefit not only the north-eastern states by giving them cheaper raw materials and larger markets for their varied manufactures, and the southern states by increasing their exports of cotton, cotton goods, forest products, iron and steel manufactures, and fertilisers, but also the Central West. The central states will find by the Isthmian waterway a larger business with the Pacific coast, and will be better able to meet European competition in western South America, Australasia, and the Orient.

The canal will doubtless have a direct effect upon the market for American coal, for vessels going through the canal may find it an advantage to purchase American fuel on the Atlantic or Gulf seaboard, or in West Indian and Central American depôts. The coal required for industrial purposes on the west coast of South and Central America, and to some extent in the coaling stations of the Pacific, will be supplied from the mines in the southern and eastern portions of the United States. There is no doubt that the canal will largely benefit the United States in trade with the Pacific states of South America.

The tonnage of the vessels that might have used an Isthmian canal in 1899 was ascertained, as the Commission explains, by an examination of the statistics of entrances and clearances kept by the United States and European countries. The entrances and clearances for the commerce of the eastern seaboard of the United States with Pacific America and with Australia, Oceania, the Philippines, Japan, China, and Siberia, and the vessel movements between the western coasts of the American continents and the North Atlantic, American, and European ports, were found to amount to 4,074,852 vessel-tons net register, including 336,998 tons for the commerce now crossing the Isthmus of Panama. This total was compared with the results of a traffic investigation made by the New Panama Canal Company. The records of that company show a traffic for the calendar year 1899 of 3,848,577 tons, net register, for the commerce between Europe and the western coast of the American continent,

between the Atlantic seaboard of America and trans-Pacific countries, and between the two American seaboards. The total obtained from the records kept by the Panama Company does not include any vessel-tonnage for the commerce now crossing the Isthmus. The addition of that tonnage, 336,998 tons, raises the total to 4,185,575. In addition to this tonnage, which comprised only traffic originating or terminating in America, was included most of the commerce of north-western Europe with New Zealand and the other islands of the Pacific east of Australia. The distances to Liverpool from the important groups of South Pacific islands north of New Zealand will be from 500 to 5500 miles less by the Isthmian canal than by way of Suez. The entrances and clearances of New Zealand's trade with north-western Europe amounted to 481,178 tons net register in 1899, and the European commerce of the other islands east of Australia to 181,743 tons. Of this total traffic of 662,921 tons, 500,000 might have used an Isthmian canal; and this amount is added to the canal tonnage originating or terminating in America. This raised the total obtained by the Commission's investigation of the tonnage that might have used an Isthmian canal in 1899 to 4,574,852 tons, net register, and the total obtained by adopting the New Panama Canal Company's figures for the traffic originating or terminating in America to 4,685,575 tons. (Report, p. 246.)

The New Panama Canal Company showed that the vessel-tonnage of the commerce between Europe and Pacific America, and between the Atlantic seaboard of America and the eastern and western sides of the Pacific, increased by 25.1 per cent. during the decade 1888-1898; and this rate of increase was adopted in estimating the traffic that should be available for the Isthmian canal in 1914, by which year it is assumed that the waterway will have been completed and put in operation. This rate of increase would raise the available traffic of 1899, by the New Panama Canal Company's figures, to 5,861,654 tons in 1909, and to 6,556,260 tons in 1914. A growth of 25.1 per cent. per decade would increase the total of 4,574,852 tons for 1899, obtained by the Commission's estimates of the statistics of entrances and clearances, to 5,723,140 tons in 1909, and 6,401,332 tons in 1914, net register. (Report, p. 247.)

The Isthmian Canal Commissioners, however, have no abiding faith in these estimates. They say:—

'The extent to which the Isthmian canal is used will depend in part upon the tolls charged. The commerce of western South America with Europe will continue to pass the Straits of Magellan or to round Cape Horn; the trade of the American Atlantic seaboard with Australia will keep to the Good Hope route; and the traffic between our eastern seaboard and the Philippines and southern China will remain tributary to the Suez route, if the charges for passing the American canal are made greater than the saving to be effected by using that waterway. A toll of about \$1 per ton, net register, could profitably be paid by the commerce between Europe and western South America, and by that of our eastern seaboard with Australia; a much higher charge would probably cause a large share of the business to continue to be done by the routes now used. For the commerce of our eastern ports with the Philippines and the mainland of Asia between Singapore and Shanghai, the distances by way of the Suez and Isthmian Canals will be so nearly equal that the route chosen will depend largely upon tolls. Light charges at the American canal will give that waterway a large share of the tonnage; high tolls will cause the Suez route to be used.' (Report, p. 249.)

It is urged that in fixing the charges for the use of an Isthmian canal, owned and worked by the United States Government, the principle of maximum revenue could not wisely be followed. The revenue-producing function of the canal should be a minor consideration, as compared with its services in promoting the industrial and commercial progress and general welfare of the United States. The exaction of tolls so high as appreciably to restrict the benefits derivable from the canal would not be to the advantage of the American people.

Now let us turn from the optimistic views of promoters and Commissioners to a more practical consideration of the facts and possibilities of the case. Colonel Church has been at great pains to arrive at an estimate of the actual traffic in existence which may be called tributary to the canal, not from the delusive records of entrances and clearances of vessels, but from the official records of imports and exports; and we will now pursue his line of inquiry. The following may be

taken as an approximate statement of the value of the South American trade upon which an American inter-oceanic canal must depend.

	Imports. £	Exports. £
Chile	9,640,360	12,575,598
Peru	2,106,640	3,361,520
Ecuador	1,000,000	1,257,978
Nicaragua	703,490	792,203
Honduras	280,803	231,014
San Salvador	600,000	914,269
Guatemala	900,000	1,674,000
Mexico,	272,289	726,393
	<hr/> 15,503,582	<hr/> 21,532,975

The general value of Spanish-American imports on the Pacific coast is calculated at the rate of 25% per ton. The exports vary in value according to the countries. Coal must be separately valued. As an example let us take Chile, whose imports are valued at 9,640,360%. If we deduct coal, 674,746 tons, valued at 1,012,000%, we have a net valuation of 8,628,360%, which, at 25% per ton, equals 345,134 tons. This makes the total imports 1,019,880 tons. Of this, 523,209 tons of coal and goods are from Pacific ocean countries, which leaves 496,671 tons of cargo for North Atlantic ports. But the distance between Europe and Valparaiso is only 1587 miles greater by way of the Straits of Magellan than by the Panama route; and eight tenths of the imports of Chile enter through Valparaiso and ports further south. The exports of Chile are 12,575,598%. From this deduct actual tonnage of nitrate—1,389,000 tons at 6% equals 8,334,000%.—and the exports to Pacific coast countries, Argentina and Brazil, 950,000%, in all 9,284,000%, which leaves 3,291,598%, or equal to 164,579 tons at 20% for the North Atlantic. Therefore Chile has :—

	Tons.
Imports	496,671
Exports of nitrate	1,389,000
„ merchandise.	164,579

Total North Atlantic trade 2,050,250

But 76 per cent. of the nitrate tonnage is carried by sailing ships, although the percentage by steamers has recently been increasing. Sailing ships average ninety-eight days for the voyage from the nitrate ports to

England, and steamers fifty-six days. The largest quantity of nitrate is shipped in the months of October, November, and December. The life of the nitrate beds is valued at about twenty years.

For another example take Peru. Her imports are valued at 2,106,640*l.*, from which deduct cargoes from China and Pacific coast, 440,547*l.*, and by way of Iquitos on the Amazon, 233,155*l.*, leaving 1,432,938*l.*, which is equal to 57,316 tons at 25*l.* per ton. The total exports are 3,361,520*l.*, less to Pacific countries and from Iquitos 993,804*l.*, leaving 2,367,726*l.*, equal to 236,772 tons, at say, 10*l.* per ton. Therefore Peru has:—

Imports	Tons.
Exports	57,316
	236,772
Total North Atlantic trade	294,088

The same process, pursued on suitable tonnage valuations with the other South American countries, with Mexico, California, British Columbia, Hawaii, the Philippines, Australasia, and the Asiatic-Pacific countries, enables us to obtain, on Colonel Church's method, the following summary of cargo tonnage upon which a Panama Canal would have to depend for traffic were the canal open:—

	Tons.
Chile	2,050,250
Peru	294,088
Ecuador	62,737
Costa Rica	12,000
Nicaragua	28,922
Honduras	10,289
Salvador	54,475
Guatemala	83,830
Mexico	32,000
California	1,048,369
Oregon and Washington	475,688
British Columbia	75,000
Hawaii	232,400
Polynesia	20,000
Asiatic-Pacific Coast	489,947
Philippines	55,000
Australasia	135,170
Total	5,160,165

But of the nitrate trade of Chile 1,057,584 tons are carried by sailing vessels; the exports of the west coast

of North America to the United Kingdom are nearly all by sail; and the remaining countries have all a large trade by sailers. At least 50 per cent. of the commercial cargo tonnage indicated is carried by sailing craft, the position of which we shall examine presently. For the purpose of estimating the value of the projected canal as a commercial venture, the tonnage of sailing ships engaged in the trade of the countries interested in it should not be included. The Canal Commission, in its report to the United States Government, includes the sailing-ship tonnage in its estimate of canal traffic, but says: 'The Nicaragua route would be the more favourable one for sailing vessels,' which, however, 'would probably be unable to compete with steamers to any considerable extent by either canal. They would certainly be unable to compete with steamers, both using the Panama canal.' The report does not say that sailing craft can be counted on to use the canal at all. The estimate we have just given of Atlantic-Pacific traffic is of cargo-tonnage, and is the utmost which the canal can expect at present. But it is subject to qualifications now to be examined.

By Colonel Church's method the estimate of cargo tons, upon which a canal would have to depend, carried to-day by sail and steamer is 5,160,165 tons,* from which, if we deduct half for the sail tonnage, there would remain 2,580,082 cargo tons for the canal; but much of this cannot be counted upon with certainty. In 1878 the tonnage which passed through the Suez Canal was 2,269,678 tons net, while the tonnage then believed to be 'tributary to the canal' was, according to the United States Bureau of Statistics, 6,312,742 tons. Thus the Suez Canal got only 36 per cent. from the apparently tributary traffic. If the Panama Canal gets 70 per cent. of the apparent steamer traffic, that comes to 1,806,058 cargo tons; but what is a cargo ton in relation to the net register ton of a steamship? The latter is the measurement adopted by the Isthmian Canal Commission in its estimate of canal tonnage for purposes of toll. There is a special Suez Canal tonnage measurement, on which the company collects its toll of nine francs per ton from all ships making the transit of the canal, and which

* 'The Geographical Journal,' xix, p. 343.

is about equal to half the cargo capacity. If we assume that every net register ton of steamships will carry two cargo tons, the 1,806,058 cargo tons that the Panama Canal may attract will require steamers of 903,029 tons net register, or only about one tenth of the Nicaragua Company's estimate. On this estimate the canal will be a poor commercial investment for America.

There is, of course, the natural growth of commerce during the construction of the canal to be added to the prospective traffic when it is open; but one may easily allow too much for this. The Lesseps Company's estimates were based on 4,838,000 tons in 1879, and on an anticipated increase to 7,249,000 tons in 1889, when the canal was expected to be open. But in 1902 the New Panama Canal Company cannot reach a higher total than 4,685,575 tons, which is actually less than the estimates of 1879. These figures, of course, are all wrong, but they make us shrink from any computation of increase. In 1880 the United States Bureau of Statistics could only find 1,625,000 tons of the world's commerce as likely to use an American interoceanic canal. But very few of the statisticians have taken the trouble to inquire how far the stream of canal traffic will be affected by two main considerations—the cost of the transit tolls and the cost of bunker coals.

Another important consideration is whether sailing vessels will use the canal at all, or whether they will be wholly or largely displaced by steamers from the trade they now occupy. The sailing traffic of the world is at present confined to certain highways, conditioned by the agency of the winds and by the demands of trade. From the English Channel and New York the chief destinations are, to the westward (by way of Cape Horn), the Pacific coast ports of South, Central, and North America; and to the eastward (by way of the Cape of Good Hope), the ports of South Africa, Australia, and Eastern Asia. Outward-bound vessels generally carry mixed cargoes; but the most important cargo from America is case oil, which goes from New York and Philadelphia to China and Japan. The chief cargo from England is coal. The westward-bound ships return by way of Cape Horn from South America laden with nitrate; from Central America with dyewoods and ore; from North America with lumber and grain. The eastward-bound vessels continue east, and the

majority ultimately fetch one or other of the Pacific coast ports of America; those from Australia bringing coal from Newcastle or Sydney; those from Hong Kong, Shanghai, and Yokohama usually proceeding in ballast after discharging at these ports. In Puget Sound, Portland, or San Francisco, these vessels are loaded with lumber or grain for Europe and South Africa. The sailing highways likely to be most affected by the construction of the canal are the routes between the English Channel and the west coast of North America, outward and homeward, and homeward from the west coast of South America. Vessels bound to the latter coast will continue to go round Cape Horn, inasmuch as the use of the canal by a vessel bound to Chile or Peru would involve, on the Panama side, a detour of several thousand miles in order to make use of the south-east trade-winds in the Pacific.

The once extensive coast-wise trade between the Atlantic and the Pacific seaboard of the United States has largely passed over to the trans-continental railways, and has almost vanished from the sea; but the traffic in coal survives. Whether general traffic can be revived by sailing vessels using the canal is a problem. The apparent saving of time would be considerable. The voyage between New York and San Francisco by way of Cape Horn is practically the same as the voyage from the English Channel, viz. 140 days outward and 130 days homeward; while the passage from New York to Colon may be made in 20 days and the return in 28 days.

The length of the sailing route voyage from the English Channel to San Francisco by way of Cape Horn is about 16,000 miles; and the average sailing time is 139 days. The return voyage, 1000 miles greater in distance, is made in 132 days. In the year 1901-1902, 104 sailing vessels from the English Channel entered at the Pacific coast ports of the United States alone; and 322 vessels cleared from these ports for the Channel. The average sailing time from the Channel to Colon is 43 days, and from Panama to San Francisco 52 days. With two days for passage through the canal, the voyage by the Isthmian route, apart from calms, would take 97 days, as compared with 139 days round Cape Horn—a net saving of 42 days. The average sailing time to San Diego is three days

less than to San Francisco; and the average sailing times to Portland and Puget Sound are respectively five days and seven days greater. On the return voyage the saving in time would be considerably less. The average duration of the passage from San Francisco to Panama is 55 days; but the voyage from Colon to the Channel by a necessarily circuitous route occupies 60 days. With the two days required to cross the Isthmus, the duration of the voyage from San Francisco to the English Channel by way of the canal would thus be 117 days, a saving of 15 days as compared with the voyage by way of the Horn. It is not conceivable that these savings would compensate sailing vessels for the cost of canal tolls and of towage, and the probability of long detentions by calms in the Bay of Panama.

The estimates, upon which a prospective traffic for the canal of 903,029 net register tons is arrived at, eliminate the sailing tonnage altogether. That apart, the total must be augmented by the amount of the traffic which the canal will create for itself. For instance, there will have to be a rearrangement of coaling stations in order to maintain across the Isthmus traffic which hitherto has passed round the Horn. At each end of the canal there will have to be depôts of bunker coal; and these will be fed from Great Britain and from West Virginia, from British Colombia and from New South Wales. The Pacific coalfields will sometimes supply the Atlantic depôts, and the Atlantic coalfields will sometimes supply the Pacific depôts, according as markets and freights vary. For the development of steamer trade all down the west coast of South America a large increase must take place in the transport of coal, if the traffic is to be taken away from the sailing craft which at present carry the bulk of that trade. To a less extent this applies to the wheat trade of California. Primarily, however, and in any case, the canal will open up new avenues for coal from Great Britain, from the southern ports of the United States, from British Colombia, and from New South Wales. It is highly probable that West Virginia coal will chiefly feed the depôts at the Colon end, and Australian coal will feed the Panama end. The vessels which bring the Australian coal across will then load nitrate or wheat or guano at one or other of the Pacific ports for Europe; but, in securing these cargoes,

steamers will have to draw upon other coal depôts before their voyage is completed.

We mention Australian coal for the Panama end of the canal because it can at present be laid down there more cheaply than any other good steam-raising coal in the Pacific. But we must not overlook the excellent coal deposits in New Zealand, or the fact that the canal will shorten the passage between that colony and the mother-country by about two days. It is more than probable that the passenger service between England and New Zealand will be diverted to the canal, both because of this saving in time and because of the long smooth-water runs that steamers can have for most of the year on both sides. The running of passenger lines will stimulate other traffic in connexion; and the preferential tariff of the colony will, with the shorter sea route, then be of more advantage to the mother-country.

The canal will provide an opportunity for the granting of bonuses to American shipping which we may hereafter find very irksome. In America at the present time there are two strong movements—one towards the reservation of the canal zone under the coastal laws of the United States during the whole period of the construction of the canal; the other, for the granting of subsidies out of Federal funds to encourage the building and sailing of American ships. If, instead of granting direct subsidies, America undertakes to refund the tolls on all American vessels using the Panama Canal—as Russia does for Russian vessels using the Suez Canal—British shipping will be under a disadvantage, which will not be less than 4s., and may be 8s., per ton in interoceanic freights. A British steamer going out from our ports with cargo to the Pacific coast of South America, and intending to load there homewards, will doubtless call at Barbados or Jamaica and fill up her bunkers there with as much coal as will take her through the canal to the port of destination and back again to the depôt. If not, she will have to coal on the Isthmus or on the Pacific coast. An American steamer going out from an American port, having only half the distance to run, can do most of the voyage on cheap Virginian coal, and enjoy the prospective rebate of dues besides.

With regard to sailers, there are two theories. The

one is that in ocean commerce we can never dispense with them because of the economy with which they can be worked, the convenience of them in many trades, and the advantage they offer in being floating warehouses in which a merchant can keep his goods, without the cost of storage, while he watches the markets and chooses his time for selling. The other is that the sailing vessel for long ocean voyages is becoming less and less adapted to modern conditions of business. Merchants no longer import goods to warehouse for convenient sale. They sell before they import; and, having sold, they want the goods as quickly as possible. Modern business having assumed a hand-to-mouth character, conducted by telegraph and completed by steamer, the sailing vessel, some say, must go. It may be so; and, if it is so, then the Panama Canal will certainly hasten the demise of the sailer. Already steamers are being employed in bringing nitrate from Chile and wheat from San Francisco round Cape Horn. For some time to come, however, a considerable demand for sailers will be created by the canal, for the purpose of conveying coal to the several coaling ports which will supply steamers in the canal trade.

It is probable, then, that the canal will cause a redistribution of the ocean-carrying trade as between steamers and sailers, and that it will be, on the whole, injurious to the latter. It is possible that the canal will stimulate the production of a new type of steamer, to obviate the purchase of expensive bunker coal abroad. It is certain that the canal will do a great deal to stimulate traffic between the eastern and southern states of America and the western coasts of America and the Pacific area generally, including our own customers and colonies. It is not by any means certain that it will do any good at all to British maritime commerce.

Art. II.—THE ADVOCATUS DIABOLI ON THE DIVINA
COMMEDIA

1. *Tutte le opere di Dante Alighieri, nuovamente rivedute nel testo del Dr E. Moore.* Second edition. Oxford: Clarendon Press, 1897.
 2. *An English Commentary on Dante's Divina Commedia.* By the Rev. H. F. Tozer, M.A. Oxford: Clarendon Press, 1901.
 3. *Studies in Dante.* Second series. By the Rev. Edward Moore, D.D. Oxford: Clarendon Press, 1899.
 4. *The Life of Dante Alighieri.* By Paget Toynbee. London: Methuen, 1900.
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THE late Bishop Creighton, in his Romanes Lecture, recalled a story of bygone days in which a guest in an Oxford common room is represented as somewhat scandalised at the censorious character of the conversation prevailing there. His host, perceiving this, turned to him with the explanation: 'You see, sir, we in Oxford are all so thoroughly acquainted with one another's virtues that the only method of importing any novelty into our conversation is by discussing our neighbours' faults.' On some such principle the subject of the present article might be justified. The beauties of Dante are now well known and appreciated. The labours of countless scholars in England, on the Continent, and in America, have made it for ever impossible to repeat Voltaire's sneer as to the impregnability of a fame which rests on total ignorance.

It is, however, well to remember that there is another side to the question. Indiscriminate eulogy of any historical or literary character, however great, is not really serviceable to the person indiscreetly eulogised; and it reacts disastrously on the panegyrist himself, warping alike the critical and the moral judgment. Ben Jonson's words about Shakespeare may well be recalled here.

'I remember, the players have often mentioned it as an honour to Shakespeare, that in his writing (whatsoever he penned) he never blotted out a line. My answer hath been, would he had blotted a thousand; which they thought a

malevolent speech. I had not told posterity this, but for their ignorance, who choose that circumstance to commend their friend by, wherein he most faulted; and to justify mine own candour: for I loved the man and do honour his memory, on this side idolatry, as much as any.*

Still more in point are Boccaccio's excellent words with regard to Dante himself.

'Assuredly I blush to be obliged to blot the fame of so great a man with any defect; but the manner in which I ordered my matter at the outset in some sort demands it. For, if I were to be silent regarding things not to his credit, I should shake the faith of my readers in the things already related which are to his credit. Therefore to himself I make my excuse, who maybe from some lofty region of heaven looks down with scornful eye upon me as I write.'†

The faults which strike us, as we read the *Divina Commedia*, fall into two main classes. There are faults of character and temper which Dante, consciously or unconsciously, reveals to us; and there are faults of art. The two are often closely connected; for the more serious faults in art spring, as we shall show, from defects in character and temper; and it is not always possible to draw the line between them.

These two classes correspond roughly with two out of the three phrases of Goethe's famous criticism on Dante, that 'the *Inferno* was abominable, the *Purgatorio* dubious, and the *Paradiso* tiresome'—a judgment often cited as if it were the *ne plus ultra* of critical fatuity.‡ It is, no doubt, acutely unsympathetic; but, considering Goethe's eminence as a poet and a man of letters, we can hardly brush aside his deliberately expressed opinion in this unceremonious way. And in the remarks of unsympathetic critics, as in the remarks of candid friends, there is often a considerable amount of truth.§

We do not quite grasp what Goethe meant by calling

* Ben Jonson, 'Discoveries,' No. 71.

† Cited by Toynbee, 'Life,' p. 150.

‡ E.g. by Dr Moore, 'Studies,' second series, p. 3.

§ It should also be borne in mind that the statement is intentionally aggressive and unqualified in form. It was struck out in the heat of a rather acrid discussion with a supercilious young Italian, who had annoyed Goethe by asserting that no foreigner could understand the *Commedia*. It occurs in the 'Zweiter Aufenthalt in Rom,' under date May 17, 1787.

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malevolent speech. I had not told posterity this, but for their ignorance, who choose that circumstance to commend their friend by, wherein he most faulted; and to justify mine own candour: for I loved the man and do honour his memory, on this side idolatry, as much as any.*

Still more in point are Boccaccio's excellent words with regard to Dante himself.

'Assuredly I blush to be obliged to blot the fame of so great a man with any defect; but the manner in which I ordered my matter at the outset in some sort demands it. For, if I were to be silent regarding things not to his credit, I should shake the faith of my readers in the things already related which are to his credit. Therefore to himself I make my excuse, who maybe from some lofty region of heaven looks down with scornful eye upon me as I write.'†

The faults which strike us, as we read the *Divina Commedia*, fall into two main classes. There are faults of character and temper which Dante, consciously or unconsciously, reveals to us; and there are faults of art. The two are often closely connected; for the more serious faults in art spring, as we shall show, from defects in character and temper; and it is not always possible to draw the line between them.

These two classes correspond roughly with two out of the three phrases of Goethe's famous criticism on Dante, that 'the *Inferno* was abominable, the *Purgatorio* dubious, and the *Paradiso* tiresome'—a judgment often cited as if it were the *ne plus ultra* of critical fatuity.‡ It is, no doubt, acutely unsympathetic; but, considering Goethe's eminence as a poet and a man of letters, we can hardly brush aside his deliberately expressed opinion in this unceremonious way. And in the remarks of unsympathetic critics, as in the remarks of candid friends, there is often a considerable amount of truth.§

We do not quite grasp what Goethe meant by calling

* Ben Jonson, 'Discoveries,' No. 71.

† Cited by Toynbee, 'Life,' p. 150.

‡ E.g. by Dr Moore, 'Studies,' second series, p. 3.

§ It should also be borne in mind that the statement is intentionally aggressive and unqualified in form. It was struck out in the heat of a rather acrid discussion with a supercilious young Italian, who had annoyed Goethe by asserting that no foreigner could understand the *Commedia*. It occurs in the 'Zweiter Aufenthalt in Rom,' under date May 17, 1787.

the Purgatorio 'dubious'; nor does the question much concern us here, for, of the three divisions of Dante's work, the Purgatorio is the one which is the least disfigured by the author's characteristic faults. But for the other two parts of Goethe's criticism, if duly limited, there is something to be said. There are passages in the *Inferno* for which 'abominable' seems to us exactly the right epithet; there are passages in the *Paradiso* and, to a less extent, in the Purgatorio and *Inferno* which we confess to finding profoundly 'tiresome.'

We will begin with the latter point; and we say deliberately that there are large tracts of the *Divina Commedia* which are not poetry at all, but simply sections of scholastic philosophy, or mediæval science, or history, forced, with immense skill, no doubt, but still forced, to wear the fetters of the *terza rima*. Such are, for instance, the classification of sins in *Inferno*, xi, and Purgatorio, xvii; the discussions of the relation of stellar influences on the one hand, and of desire and pleasure on the other, to free-will, in Purgatorio, xvi and xviii;* of the nature of compulsion and the problems of heredity in *Paradiso*, iv and viii; while the speculation as to how disembodied spirits can grow lean, in Purgatorio, xxv, may rank with Milton's speculations on the digestive processes of angels. Then, in the theological sphere, we have the discussions on redemption, faith, and angels, in *Paradiso*, viii, xxiv, and xxix. In history, the sketch of the progress of Rome in *Paradiso*, vi, and the argument about Solomon's wisdom in *Paradiso*, xiii, both seem to us extremely unpoetical. But the worst instances occur in the scientific passages: the explanation of the origin of winds in Purgatorio, xxviii, the astronomical data of Purgatorio, iv, and the appalling discussion in *Paradiso*, ii, on the cause of the spots in the moon. We ask any unprejudiced reader to peruse lines 97-105 of this canto, and then say whether they do not rather resemble an example in Ganot's 'Physics' than anything which can be called poetry.

We note also in these discussions the occurrence of harsh technical terms, such as 'corollario' and 'quiddi-

* Cf. also the curious passage, *Par.* iv, 1-3, which, besides being untrue to nature, seems rank determinism; the speculation on the return of souls to the stars, *ib.* 19 ff., 40 ff.; and the passage about vows, *Par.* v, 19 ff.

tate,' which can never by any possibility be made poetical. But at least Dante's lore was taken from Latin sources, like the 'Summa' of St Thomas, the language of which had some affinity with the speech 'Del bel paese là dove il sì suona.' Dante himself would have been puzzled to get into his verse some of the technical jargon of modern philosophy. But, apart from these longer discussions, there are numerous little touches scattered up and down the *Commedia*, which show how poetry shrivels up and dies at the approach of this school-learning, when some prosaic tag of scientific knowledge is dragged in, such as the defect in the Julian Calendar, the properties of triangles, the equality of the angles of incidence and reflexion of a ray of light.*

Dante himself has told us† that the object of the inspiration given to Solomon was not that he might deal with subjects such as these. It is a pity that he did not recognise that poetic inspiration has nothing to do with them either. The discussion of these subjects in the prose of the 'Convito' is not only infinitely more appropriate, but has also far more literary beauty than the parallel passages of the *Commedia*. Even the rough-hewn scholastic Latin of the 'De Monarchia' produces a more harmonious impression, when dealing with such themes, than the great poem does.

It may perhaps be said that some of the passages to which we have referred, such as those on the classification of vices, are necessary to the understanding of the poem and its plan. Even if that be so, it does not follow that they should form part of the poem itself, any more than that Dante should incorporate in the *Commedia* a statement of the scheme of allegory on which it is based, such as he has given us in the letter to Can Grande. Another letter to him, or to some other of his patrons, would have answered the purpose; or he might have given us a commentary, as he has done in the 'Convito.'‡

* Par. xxvii, 143; xvii, 14, 15; Purg. xv, 16-21. For other instances, see Inf. ii, 88-90; xx, 81; Par. viii, 70; xiv, 102.

† Par. xiii, 97-102; cf. xxiv, 133, 134; and the third canzone of the 'Convito,' which is in Dante's worst scholastic manner. Dante himself confesses (l. 14) that it is 'aspra e sottile.'

‡ 'We can imagine its strange author commenting on it, and finding or marking out its prosaic substratum, with the cold-blooded precision and Vol. 200.—No. 400.

We are very far from meaning that theology, philosophy, history, and science can never be fit subjects of poetry. Dante himself, and other poets too, have proved the contrary. But it must not be this crude learning of the schools, which is ever 'ready to vanish away' in the light of fuller knowledge, but thought fused and made immortal by being heated white-hot in the furnace of emotion fanned by the wings of imagination. In a great part of the concluding cantos of the *Paradiso* Dante has given us this. Take in illustration such lines as these:—

'Lume è lassù, che visibile face
Lo Creatore a quella creatura,
Che solo in lui vedere ha la sua pace';*

or this—

'S' aperse in nuovi Amor l' eterno Amore';†

or lastly—

'Onde si movono a diversi porti
Per lo gran mar dell' essere.‡

Let us set beside these such passages as Shakespeare's—

'Alas, alas!

Why, all the souls that were were forfeit once;
And He that might the vantage best have took
Found out the remedy';

or Shelley's—

'Life, like a dome of many-coloured glass,
Stains the white radiance of eternity';

or Tennyson's—

'Rome,
The slowly-fading mistress of the world.'

scholastic distinctions of the "Convito." (Church, 'Essay on Dante,' p. 102, ed. 1878, a work which, in spite of all that has been written since, still remains the best introduction to the study of the *Commedia*.)

* 'There is a light above, which visible
Makes the Creator unto every creature,
Who only in beholding Him has peace.'

Longfellow, *Par.* xxx, 100-102.

† 'Into new Loves the Eternal Love unfolded.'

Longfellow, *ib.* xxix, 18.

‡ 'Hence they move onward unto ports diverse
O'er the great sea of being.'

Longfellow, *ib.* i, 112, 113. Cf. *ib.* iii, 85-87.

We feel at once that no progress in theology, philosophy, or history, can ever dim these sayings, or make them out of date.

Mr Pater, in one of his delicate and discriminating 'Appreciations,' has noted an analogous phenomenon in Wordsworth's poetry—

The 'perplexed mixture of work touched with intense and individual power, with work of almost no character at all; ... the intrusion from time to time of something tedious and prosaic';

as opposed to those passages where

'the word and the idea, each in the imaginative flame, become inseparably one with the other by that fusion of matter and form which is the characteristic of the highest poetical expression.'

The truth is that there were in Dante, intellectually considered, two distinct personalities—one, the supreme poet, in his own line unsurpassed and unsurpassable; and the other, the man of learning, wonderful indeed for that or any age, but neither unsurpassable nor, even then, unsurpassed, as examples like Albertus Magnus, Thomas Aquinas, and Vincent of Beauvais sufficiently show. Unfortunately Dante, though fully conscious of his greatness as a poet, seems to have valued himself even more as a man of learning; and the consequence is that the man of learning is constantly intruding where he has no business.

Another great fault of Dante is likewise the result of this intellectual pride, this love of parading his extraordinary knowledge, we mean his excessive allusiveness, his love of periphrasis, or what is sometimes called *antonomasia*, whereby an object, instead of being directly named, is described by some attribute or fact connected with it. This is, of course, within proper limits, a perfectly legitimate mode of poetical adornment. We are none of us 'forgetful how the rich procemion' rolls in Milton's 'Paradise Lost'; and there are many instances in Dante as noble, as appropriate, and as intelligible as that. But in Dante's poetry, as in Mr E. A. Freeman's prose, this characteristic develops into a perfect disease. Nothing is simply what it is; it must be described

in relation to something else; and the result is that even those who know their Dante fairly well can hardly read fifty consecutive lines anywhere in the *Commedia*, without having to resort to a commentary. These allusions are taken from all departments of Dante's multifarious knowledge. But the tendency comes out most strongly in the marks of time and place which occur throughout the poem. The former class of passages was elucidated by Dr Moore in an interesting monograph published in 1887;* while Mr Tozer, in the excellent commentary which stands at the head of this article, has brought his own wide geographical knowledge to bear on the second class, the most remarkable of which is an extraordinary passage in which the position of Marseilles is indicated by a periphrasis extending over twelve lines.†

Again, Dante's use of simile and figurative language, exquisite as it usually is, is sometimes overdone, an excess which leads occasionally to a curious mixture of metaphors, as when he speaks of cooling the bow of his ardent desire;‡ while some of his comparisons are strangely infelicitous, as when St John asks Dante

‘Con quanti denti quest’ amor ti morde?’

and it is certainly a little unfortunate that his allegorical scheme of colour obliged him to give Beatrice green eyes.

That, apart from all these causes of difficulty, Dante's mode of expression is often exceedingly obscure is proved by the fact which every serious Dante student has experienced, that, after all the labours of all the commentators, extending over more than five hundred years, there still remain passages out of which it is impossible to extract any really satisfactory sense. §

We have, of course, no right to complain of a poet for being hard to understand, because he has undertaken ‘Forti cose a pensar mettere in versi.’ We ‘in our little

* ‘The Time-references in the *Divina Commedia*’ (David Nutt).

† Par. ix, 82–93. Many readers will sympathise with the question of Rinieri da Calboli (*Purg.* xiv, 25, 26):

‘Perchè nascose
Questi il vocabol di quella rivera?’

Why did he conceal the name of that river?’

‡ Par. xv, 42–45; the text, however, is not quite certain.

§ Goethe complains of this ‘Dunkelheit’ in his conversations with Eckermann, i, 120: ‘Uebrigens sprach Goethe von Dante mit aller Ehrfurcht.’

barks' must not wonder if we sometimes fail to follow him, 'Voyaging through strange seas of thought, alone. But Dante, like Browning and, in a less degree, like Æschylus, is often in his mode of expression quite needlessly difficult.

But there are passages in which Dante shows his intellectual pride not merely indirectly, but directly, by the scorn which he pours on the ignorance and stupidity of others.* He has little of the intellectual humility of Bede, who, himself the ripest scholar of his time, warns us so movingly that many a learned man may be found in the end among the lost, while many a simple soul which has kept Christ's commandments will shine among apostles and doctors; little of the spirit of that other great teacher, of whom it was so beautifully said that 'he was tender to stupidity, as to every form of human weakness.'

We pass on now to the remaining part of the criticism which we have borrowed, with the necessary qualifications, from Goethe, that there are parts of the *Inferno*, and (we fear it must be added) parts also of the *Purgatorio* and the *Paradiso*, which are 'abominable.' Here, too, the faults may be divided into faults of character and faults of art; and here, too, the latter often arise out of the former.

Let it be understood at the outset that we do not for one moment deny that the terrible, the horrible, and the grotesque, may legitimately be made the subject of artistic treatment. Goethe himself, so often regarded as hopelessly incapable of appreciating Dante, has said of the terrible Ugolino episode, that 'it belongs to the very highest products of poetry.'† But unless we are disciples of Zola and the newer realism, the line must be drawn at the simply disgusting; and some of the punishments of the *Inferno*—the loathsome worms which devour the mingled blood and tears dropping from the *Vigliacchi*, the mangled sowers of discord with their bowels hanging out, the alchemists scratching off the scabs from their diseased

* 'Convito,' iv, 14, ll. 105-107: 'Risponder sì vorrebbe non colle parole ma col coltello a tanta bestialità.' ('To such brutishness one should reply, not with words, but with a knife.')

† 'Aufsätze zur Literatur,' No. 140a.

bodies with their nails—are simply disgusting and nothing else. Nor is it any answer to say that these punishments are symbolical of the sins so punished; for, as Plato saw long ago, an immoral myth does not cease to make an immoral impression because it is allegorically interpreted.

The same, and worse, must, we fear, be said of the coarse horse-play of the demons in *Inferno*, xxi and xxii. Surely the 'eternal loss' even of *barattieri* was too sad a thing to be made the subject of buffoonery such as this. We know, of course, what has been said about Dante's lightening the strain of the terrors of the *Inferno*, as Shakespeare lightens the strain of his tragedies by his clowns and rustics. But there were other ways of doing this, as Dante has shown by the lovely similes of the peasant looking out upon the country on a frosty morning, or watching the fireflies flitting in the valley below him.* And if there were no other means of doing this, it were better left undone.

But the case is infinitely worse, it seems to us, if, as the elder Rossetti suggested, and Dr Moore thinks probable,† the names of the demons are caricatures of the names of the *gonfalonieri* and priors then in office in Florence, who were among Dante's bitterest political enemies. For what does this mean, if it be true? It means that Dante, building a poem, which, as he was fully conscious, was to last for all time, and was, like another great poem, 'To justify the ways of God to men,' enshrines in it his personal, even if just, resentment against these obscure and short-lived officials.

Dr Moore, indeed, tells us that Dante never 'took advantage of his subject to gibbet his personal enemies or opponents.‡ The judgment should receive all the weight due 'To that long study and the mighty love' which he has lavished so ungrudgingly on his favourite author. But we must confess that we cannot share his opinion. What are we to say of the savage outbursts in *Paradiso*, xvi, against Baldo d' Aguglione, who took an active part in Dante's banishment, and against the Adimari, who seized his property and opposed his return? What of the fact that Filippo Argenti, in whose torments Dante, in *Inferno*, viii, takes such fiendish

* *Inf.* xxiv, 1 ff.; xxvi, 25 ff.

† 'Studies,' 232 ff.

‡ *Ib.* 219.

delight, was a member of the same family? The whole idea of detailing in the courts of heaven these old Florentine scandals, the doctored ledger and the fraudulent bushel, was a singularly unhappy one.

But, even if we grant that personal enmity was not the motive in these cases, there are whole tracts of the poem which simply reek with the feuds and factions and mutual hatreds of the Italian cities. What are we to say of Dante's complaint that his cousin's death had never been avenged? *—a passage which, according to Mr Toynbee, † may have been responsible for the subsequent murders which occurred in the prosecution of that feud. What of the fierce denunciations of other Italian cities, the passionate wish expressed, not merely for the punishment, but for the utter extirpation of Pistoia, Pisa, and Genoa? ‡ while of the Val d' Arno he would destroy the very name. § The whole tirade in Purgatorio, xiv, against the inhabitants of the Val d' Arno and the Romagna seems singularly inappropriate in the mouth of one who was purging the sin of envy.

In regard to Florence itself there are, of course, many passages of bitter denunciation, but there are also other passages which testify very touchingly to Dante's love. Had we only the *Commedia* we might be disposed to hold the balance even. But we fear the scale must be turned against Dante by the unpardonable passage in the letter to Henry VII, in which he urges him to come and crush 'the viper.' 'Tunc hereditas nostra, quam sine intermissione deflemus ablatam, nobis erit in integrum restituta.' || Dante seems to have shared the delusion, so common among exiles, that the first duty which they owe to their country is their own return. It is all too sadly of a piece with what Boccaccio tells us.

'He was more given to faction after his exile than was becoming to a man of his parts, and more than he would

* Inf. xxix, 31-36.

† 'Life,' p. 66.

‡ Pistola, Inf. xxv, 10, 11; xxiv, 126; Pisa, ib. xxxiii, 79-84; cf. Purg. xiv, 52-54; Genoa, Inf. xxxiii, 151-153. Many other instances, not quite so strong, in regard to other cities might be quoted. As to the 'vanità,' which Dante ascribes to the Sienese (Inf. xxix, 121, 122; Purg. xiii, 151), Commynes is at one with him: 'La ville est de tous temps en partialité [*stasis*], et se gouverne plus follement que ville d'Italie,' viii, 2 (ed. Dupont, ii, 436).

§ Purg. xiv, 30.

|| Epist. vii, §§ 7, 8.

have had it believed of him by others. And what I most blush for on account of his memory is that in Romagna it is perfectly notorious to every one that any feeble woman or little child who had spoken on party matters, and found fault with the Ghibelline party to which he belonged, would have stirred him to such a pitch of madness that he would have thrown stones at them if they had not held their peace; and this passion he retained to the day of his death.*

Nor can we, with Dr Moore, regard it as proving any high degree of impartiality that Dante can abuse his own party as well as his opponents.† Our least eminent politicians can do as much.

As regards Dante's feelings towards foreign nations, he has one contemptuous reference to the 'guzzling Germans.'‡ But his attitude towards France calls for more extended notice. Dante clearly did not love the French, though he praises them ironically for being not quite so foolish as the Sienese.§ And it may be doubted whether patriotic Italians have at any time had much cause to love France. Browning's address to Italy—

'O woman-country, wooed, not wed,
Loved all the more by earth's male lands,
Laid to their hearts instead!'

may be, and is, very pretty poetry. The naked historical fact is that, on the part of France, Spain, and the Empire, the wooing has generally taken the form of the most brutal ravishing.||

Dante had special reasons for disliking Philip the Fair. Apart from individual acts, such as the seizing of Boniface VIII at Anagni, the great political positivist of the Middle Ages was necessarily antipathetic to an idealist like Dante. But this not unjustifiable dislike has led Dante to commit what is perhaps the greatest injustice of the whole poem; we mean his treatment of St Louis. Not only do we not meet him, as we should expect, among the soldier saints in the heaven of Mars, though such a very dubious saint

* Cited by Toynbee, 'Life,' pp. 155, 156.

† Par. vi, 100-102; cf. Moore, 'Studies,' 294.

‡ 'Tedeschi lurchi,' Inf. xvii, 21.

§ Inf. xxix, 121-123.

|| Cf. Benvenuto da Imola, v, 463: 'Nescio quid utile faciant in Italia Gallici vel Germanici, nisi rapinas publice et privatim'; cited by Gardner, 'Dante's Ten Heavens,' p. 225.

as Robert Guiscard is found there, but the omission is emphasised in two extraordinary passages, of which, owing to their allusive character, the sting is perhaps not always recognised. One is where Hugh Capet, speaking of his descendants, sums them up contemptuously as 'the Philips and the Louises by whom France has been lately governed.'* The other passage is placed in the mouth of Sordello, and, when stripped of periphrasis, it comes to this, that Charles II of Anjou was as inferior to Charles I as the latter and his brother, St Louis, were to Peter III of Aragon.† And here we cannot help expressing our profound regret, we had almost said indignation, that Dr Moore, in discussing this question, should have allowed himself to use the expression, 'Dante had no great respect for imbecile saintliness.'‡ The man who inspired the passionate devotion, not of any mere monkish chronicler, but of a soldier and administrator like Joinville, the man whose character made him the accepted arbiter of Europe, the statesman, the legislator, the crusader, is as far removed from the imbecile type of saintship as it is possible to conceive. And saintliness, especially in high places, is not so common that we can afford to belittle it when it does occur. It would be better surely to admit frankly that Dante has been misled by national prejudice into the commission of a grave historical injustice.

Dante's insulting treatment of some of the criminals in the lower circles of hell has been compared with the conduct of Aristotle's highminded man who insults his enemies deliberately and of set purpose. Dante was, as we all know, an ardent Aristotelian; but he was, we may not doubt it, a yet more ardent Christian. Christianity was for him not merely

'Il vero, in che si cheta ogni intelletto,'

it thrilled every fibre of his heart and gave his imagination wings to soar. § Christ can be stern enough to individuals, to classes, and to cities. 'It had been good for that man if he had never been born'; 'Ye generation of vipers, how can ye escape the damnation of hell?' 'It shall be more tolerable for Sodom in the day of judgement, than

* Purg. xx, 50, 51.

‡ 'Studies,' p. 296.

† Ib. vii, 127-129.

§ Cf. Par. xxiv, 86 ff., 145-147

for that city.' But we cannot conceive Him expressing loathing and contempt for any, even the most degraded, human soul.

But apart from all questions as to the morality or taste of particular passages of the *Commedia*, the feeling which has been strongest in our mind in re-reading the poem is astonishment that any human being should dare to pronounce a final verdict on the men of his own time. In the case of the great characters of history the principle might perhaps be pleaded, '*securus judicat orbis terrarum*,' though many, perhaps, even of these judgments will one day be corrected or reversed. But which of us is fit to decide the eternal destiny of our neighbours and contemporaries? Who shall dare, for instance, to limit the possibility of the soul's sudden turn to God in the supreme crisis of its earthly fate? There is an eloquent and touching letter of Fénelon's on this very point, written to console the Duchesse de Chevreuse on the death of her son, the Chevalier d'Albret, who had fallen in action, after a life which had only too much resembled that of the ordinary young French noble of the day.

'Such an extremity as this' (writes Fénelon) 'routs all life's illusions, lifts a veil, reveals eternity, and recalls the realities that have become shrouded. However little God may seem to be working in that moment, the first instinct of a heart that has ever been accustomed to Him is to throw itself on His mercy. Neither time nor exhortations are needed for Him to be felt and heard. To Magdalene He said but the one word "Mary," and she replied to Him but that other word "Master"; and no more was needed. He called His child by her name, and she was already returned to Him. That ineffable appeal is all-powerful; a new heart and a new soul are born in the inmost being. Weak men, who can only see the surface, desire preparation, definite ritual, spoken resolves. God needs only a moment wherein He can do all, and see that it is done.'

We all know what beautiful and pathetic use Dante has made of this possibility in the cases of Manfred and Buonconte da Montefeltro, two of the loveliest episodes in the whole of the *Commedia*;* and we know that the

* *Purg.* iii, 103 ff.; v, 85 ff.

touch of a crucifix on the dying lips of Charles of Anjou sufficed to redeem him, in Dante's view, from the fate which most of us would be inclined to say that he richly deserved, and to place him in the flowery valley of the princes in Ante-purgatory. And who was Dante that he should exclude this possibility in other cases also? Dante himself has told us that

‘la bontà infinita ha sì gran braccia,
Che prende ciò che si rivolge a lei.’*

Dante himself has told us that he has known the most unpromising stocks to blossom at the last; and he rightly uses this as an argument against hasty judgment.† We can only say that again and again Dante has sinned against his own light. One especially bad case is this. Among the traitors in Antenora Dante places Tesauro di Beccheria, beheaded at Florence in 1258 on a charge of treasonable correspondence with the exiled Ghibellines.‡ Villani says that many people believed him to be innocent.§ We do not mean to say that these were necessarily right and Dante necessarily wrong as to the facts. But Villani's statement does prove that the matter was at least doubtful; and absolute certainty could alone, we will not say justify, but excuse, such a passage. In after years Boccaccio pleaded for Dante with the Florentines on the ground that ‘all hatred and anger and enmity cease at the death of whoso dies.’|| But did Dante ever act on such a principle himself? And even if we grant (though in reality we will by no means grant) that no mercy need be shown to the dead, was there no consideration to be shown for the feelings of the living—‘gli altri che fur cari?’

In the seventeenth canto of the *Paradiso* Dante tries to anticipate these criticisms. His pleas are mainly two. The first is contained in the well-known vulgarism, ‘Let those scratch who itch’; the other in the simile that, like the wind, he only smites the highest peaks. Of the former,

* *Purg.* iii, 122, 123.

‘Infinite goodness has an embrace so wide,
That it receives all that turns back to it.’

† *Par.* xiii, 130-142; cf. xix, 79-81; xx, 133-135.

‡ *Inf.* xxxii, 119, 120.

§ Villani, vi, 65, cited by Mr Tozer in his note on the passage.

|| Cited by Toynbee, ‘*Life*,’ p. 134.

we can only say that to us it seems an aggravation, rather than a justification, of the original offence; and of the latter, that it is not true. Dr Moore has pointed out* that, in the first seven cantos of the *Inferno*, with the exception of the 'people of much worth' in Limbo, almost all the persons mentioned are men of no account. And in other parts of the *Inferno* also characters are found on whom the most patient research has failed to throw any light.† Even of those about whom something is known, many seem to be quite fourth-rate people.

We remember reading in the days of our childhood a story of Lionardo da Vinci. We do not know whether it was based on any legend or tradition, or whether it was merely the creation of a graceful fancy. The story, as we remember it, was something like this. When Lionardo was painting his great fresco of the Last Supper he reserved the figure of the Saviour for the supreme effort at the last. He painted first the eleven faithful apostles. But when he came to the traitor, the tempter suggested to him to avenge himself on a personal foe by representing him in the character of Judas, which he did with perfect success. But after yielding to the passions of hatred and revenge, he strove in vain to paint 'a semblance such as His,'‡ and he threw down his brushes in despair. The day came when the fresco was to be unveiled, and Lionardo stood with downcast eyes awaiting the inevitable shame and exposure. But instead of the shouts of derision which he had expected, an awestruck silence fell on the assembly, and Lionardo lifted his eyes to seek the cause. And he saw in the centre of his picture a figure in form and hue more beautiful than even he could have conceived, for an angel from heaven had descended in the night and completed the unfinished work. But the hues of heaven could not last in the atmosphere of this low earth; and that is why the central figure of the world's masterpiece was the first to fade.

* 'Studies,' 170.

† Borsiere, *Inf.* xvi, 67-72; Buoso, xxv, 140; Cianfa, *ib.* 43; and Puccio Sciancato, *ib.* 148.

‡ 'Si fatta la sembianza,' *Par.* xxxi, 107. This occurs in the simile of the pilgrim from Croatia gazing on the Veronica at Rome—perhaps the loveliest simile in the whole of the *Commedia*.

We might almost dream that something of the same kind had occurred in the composition of the *Divina Commedia*, so great is the distance between its highest and its lowest, between Dante with his cheeks begrimed with the soot of hell, and Dante with his face irradiated with the beatific vision.

It is not for us to measure the distance between any man's best and worst. The 'strange story' of Dr Jekyll and Mr Hyde has a serious significance for almost all of us. Nay, in extreme cases, Dante's terrible imagination of a continual interchange of the human and serpentine natures is not too violent an allegory. Once, and only once, on this earth moved One

'Che nacque e visse senza pecca';

One who could sound the depths and scan the heights to which human nature is capable of sinking and aspiring; One 'who needed not that any should testify of man, for He knew what was in man.'

Art. III.—THE PALACE OF KNOSSOS.

1. *The Annual of the British School at Athens.* Vols VI-IX. London: Macmillan, 1900-4.
2. *The Pottery of Knossos.* By D. Mackenzie. *Journal of Hellenic Studies*, XXIII, I. London: Macmillan, 1903.
3. *Monumenti Antichi.* Issued by the R. Accademia dei Lincei. Vols XII, XIII. Milan: Hoepli, 1902-3.
4. *Excavations at Phylakopi in Melos.* Published by the Society for the Promotion of Hellenic Studies. (J.H.S. Supp. Paper, IV.) London: Macmillan, 1904.
5. *Mycenæan Tree and Pillar Cult.* By A. J. Evans. J.H.S. XXI. London: Macmillan, 1901.
6. *Homerische Paläste.* By Ferd. Noack. Leipzig: Teubner, 1903.

THE ruins of the Knossian palace* are now almost entirely uncovered. This does not mean that the capital of prehistoric Crete will have been explored by the end of the coming season, or the season after it. A large area north, west, and south of the royal buildings, which has been proved by soundings to contain extensive remains of early houses of great interest, has still to be excavated; and cemeteries of prehistoric epochs, tapped at various points upon a wide outer circle, appear, from the results of the past season, to retain a fair proportion of virgin graves. There seems also to be an outlying north-western quarter of the palace itself, containing rich magazines, not yet opened up.† The paved road to it has been followed for some distance, and will be explored further in 1905; while the primitive lower levels all over the site are to be re-examined.

Moreover, the fortunate explorer has yet to put before us all he has learned himself. A comprehensive volume, with copious pictorial illustration, is to be issued by the same house which has published his preliminary reports, at the instance of the Committee of the British School at Athens; and we understand that a special work on the

* The plan published herewith is that of the Later Palace, drawn by Mr Theodore Fyfe, and exhibited at Burlington House in 1902, with the results of the season of 1903 added. It is the most complete plan yet issued, and appears by kind permission of Messrs. Macmillan and Mr A. J. Evans.

† See plan: Western Theatral Area.

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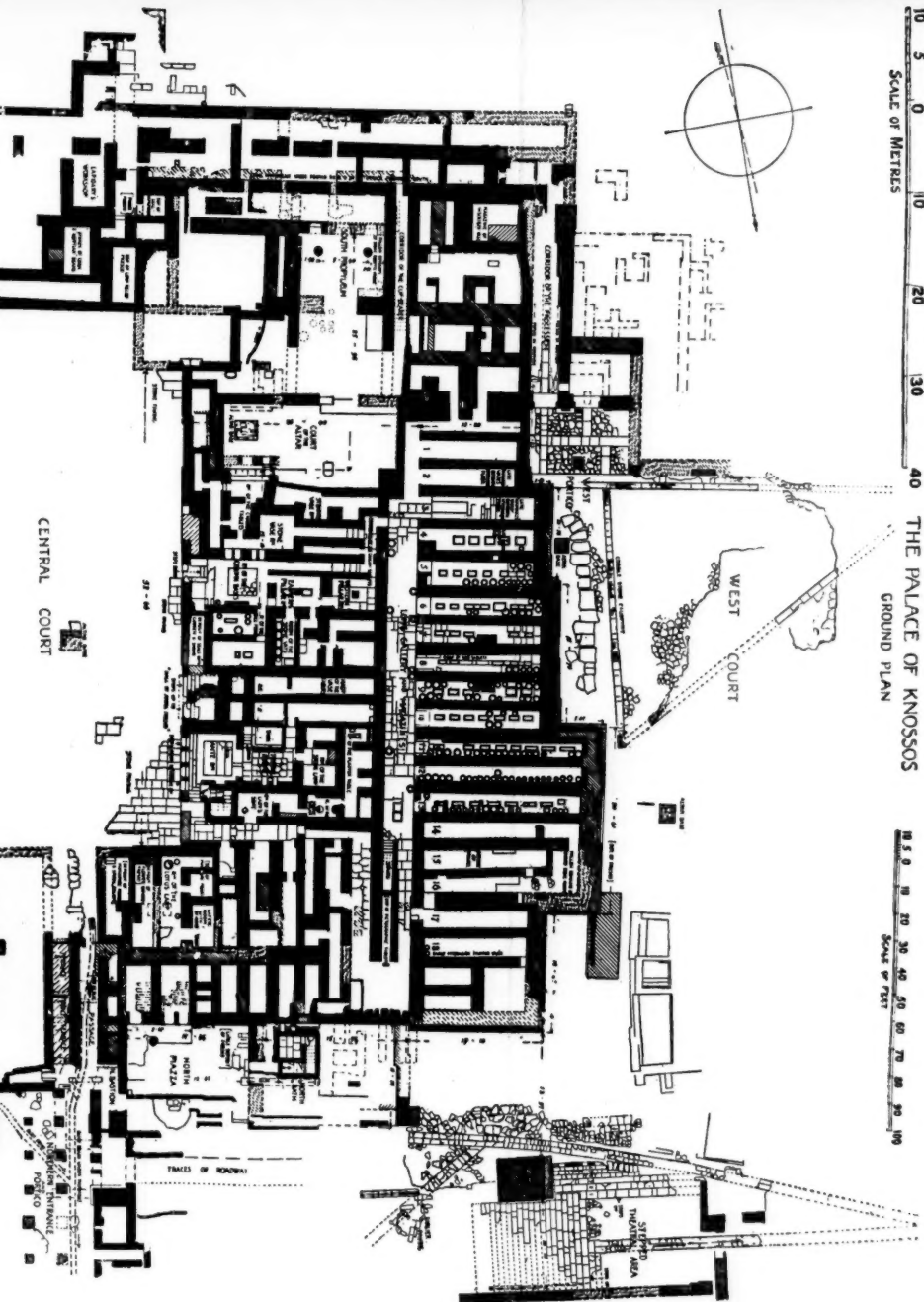
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MEASURED AND DRAWN BY THEODORE FYFE.

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SCALE OF METRES

THE PALACE OF KNOSSOS GROUND PLAN

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Scale of Feet



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inscriptions has been taken in hand by the Oxford Press. But these final publications, though in preparation, are not expected for some time to come, perhaps for two years at least. In the meanwhile we have before us provisional reports, which have been issued with a promptitude, regularity, and fulness almost as novel as their contents.

No previous archæological enterprise of nearly equal magnitude has been recorded thus minutely while in progress; nor could such a record have appeared in the case of Knossos had the explorer been another than Mr Arthur Evans. Probably no digger has set to work on a prehistoric site with this scholar's profound and wide knowledge of prehistoric archæology in general, added to his unique knowledge of local antiquities. Moreover, his mastery of museum craft has rendered it possible for the *disiecta membra* of an ancient civilisation to be repaired and reconstituted on the spot, and forthwith reproduced and published. How high a standard Mr Evans has set for preliminary reports becomes apparent when one turns to the *Rendiconti* of the Italian archæologists who have been exploring important sites of the same prehistoric civilisation on the southern plain of Crete. These have been issued in two parts of the 'Monumenti Antichi,' the first written by Dr L. Pernier, concerning the palace at Phæstos, the second by Professor F. Halbherr, *doyen* of Cretan explorers, concerning the neighbouring site of Haghia Triadha, where a splendid villa, probably of the kings of Phæstos, has been discovered. A further *livraison* on the latter site is expected; and in the meantime we can take into consideration a supplementary report by Dr Paribeni, which states shortly the most remarkable results of the season of 1903. Certain of the discoveries here recorded are of a nature to distract attention even from Knossos. The steatite vases with reliefs and the painted sarcophagus, for example, are treasures not equalled in their kind elsewhere. Nevertheless, full and interesting as the Italian reports are, one cannot but compare them unfavourably with the Knossian in respect of comprehensiveness, illustration, and suggestive comment; comprehensive, illustrative, and suggestive though they unquestionably are beyond any others so promptly issued upon Greek discoveries. There is much more, not only in Mr Evans'

reports, but behind and around them; in a word, much more prehistoric atmosphere.

If, however, we find ourselves already in a position to estimate in general terms the gains from Knossos, at the same time it must not be forgotten that Mr Evans' reports have been issued provisionally, and therefore that close criticism of them at this stage would be neither fair nor profitable. It is necessary to insist on this, if only because the writer, with his singularly fearless and sanguine temperament, shows himself always willing to err on the side of positive assertion; and, in his desire to hold that public interest on which the continuance of his work largely depends, gives hostage upon hostage to fortune in the shape of immediate explanation and ready suggestion in the obscurest matters. Critics feel themselves challenged, for instance, by his confident characterisation of the divers parts of his palace, by his 'shrines' and 'sanctuaries,' by this group of chambers, which was 'the residence of a court official' of much artistic taste,* by that, which was the priest-king's 'summer pleasaunce' by the riverside. But these characterisations are not all to be taken very seriously; and some, we may safely guess, will not reappear in the final volume. For the moment they have served more than one purpose. For, besides the interest of the public, there is an interest of the discoverer to be considered. In all work of excavation it has been found by experience to be of prime importance that the director should continually form hypotheses as to the character, relations, and significance of his discoveries as he is making them. Only thus will his attention and observation be maintained at that high pitch essential to success in work in which the boredom of master or men entails swift and irreparable disasters.

To find the ground scheme of a prehistoric palace on Greek soil was, of course, not a new thing. This generation has watched the uncovering of Tiryns. To associate it with great traditions of Hellenic mythology was not to do more than Schliemann did for the Mycenæan palace, and with a probability neither less nor greater; for the connexion of Minos as a personality with the Cretan

* See plan; South-east House.

palace, though likely enough, is no more demonstrable than that of Atreus with the Argive; and the identification of the Knossian building with the 'Labyrinth' of Dædalus is not, and perhaps never will be, proved.

But, if the finding of a palace, rich in legendary association, be no novelty, this particular palace presents new features without end—in its architectural type, in its architectural stratification, in the grandeur and beauty of both its structure and its decoration. Its variation from the accepted scheme of Greek prehistoric royal houses was not fully realised till the second season of its exploration; and even then might have escaped recognition a little longer if it had not been for Professor Halbherr's revelation of the simpler and better preserved palace plan at Phæstos. For there the type of large hall was apparent in 1900, which had to wait at Knossos till a year later. In his second report, however, issued early in 1902, Mr Evans showed himself fully aware that his palace did not conform in important features to the type rendered familiar by Schliemann; and in his statement of these he anticipated the distinctions made by Dr Ferdinand Noack in the short architectural study on 'Homeric Palaces' which he has dedicated appropriately to the two palace-finders, the British and the Italian. The German archaeologist distinguishes a south Ægean type of domestic structure whose variation from that of the north consists briefly in these features: that it was built without any ring-wall round a central court, not facing a forecourt, or within an *enceinte*; that it rose storey above storey (at Knossos there is evidence for four storeys in part of the palace, and for three in the 'royal villa'), having suites of rooms opening one out of another, and not, as at Tiryns, distinguished by neutral zones; that the ordinary entrance-ways were bipartite, divided by a single pillar or pilaster; that there was no central hearth set among columns; that the halls were of greater breadth than length; and that the façade was a long, not a short, side.

Certain deductions of far-reaching interest are made from these facts. The southern type bears no perceptible relation to the architectural types of later Hellas, but has obvious affinities with both Egyptian and Babylonian buildings—a fact first noted by M. Edmond Pottier when,

visiting the half-revealed site of Knossos in 1901, he was reminded of the plan of the palace at Tell Lo. Mr Evans has remarked, moreover, other features which the Cretan type both of palace and private house (inferred partly from the faience mosaic of house façades which he describes in his second report) has in common with structures of the eighteenth dynasty in Egypt. At the same time, however, the main features in the arrangement of Cretan palaces appear to be native—for example, their quadrangular scheme,

'with a central court approached at right angles by four main avenues, dividing the surrounding buildings into four quarters—a simple conception which, as we now know, long before the days of the later Roman *Castra*, was carried out in the *Terremare* of northern Italy.'

The northern type, on the other hand, as seen at Mycenæ, Tiryns, Hissarlik, and Phylakopi ('Third City'), is demonstrably the precursor of the familiar scheme of the Hellenic temple. The Mycenæan 'Megaron' and the Parthenon display one architectonic idea. It must be observed, however, that the Homeric house, as far as it can be derived from poetic description, is hardly more to be reconciled with the northern than the southern type; but the discrepancies possibly seem greater to us than they would have done had an architect of the ninth century left us his actual plans and elevations.

So far as we can see at present, the southern type occupied the Ægean field before the northern. The latter did not appear before the 'Mycenæan period,' properly so called, i.e. before about the middle of the second millennium B.C., and then only in the northern parts of the area. The volume recently issued by the Hellenic Society, which contains the results of the British excavation at Phylakopi in Melos, records a significant fact observed there. A small palace of purely northern type was brought to light above two strata of house-remains. These houses, small and simple as they were, are well enough preserved to demonstrate their conformity, not to the northern, but to the southern architectural type. Their clusters of engaged chambers have no relation with the Mycenæan 'Megaron' scheme, but are quite in keeping with the Knossian palace and houses. The upper stratum of

these houses is shown by many correspondences to synchronise with the second period of the later palace at Knossos. A southern influence, therefore, was prevalent in Melos, as in Crete, during almost all the prehistoric period—a fact which might have been deduced equally well from the extensive importation of Cretan objects, and the prevalence of Cretan decorative ideas, illustrated in this volume by Messrs Edgar and Mackenzie, and noted from the other side again and again by Mr Evans. It was not till the latest age that this southern civilisation encountered a distinct influence born of the north, and fell back before it. It is always perilous to deduce political from artistic history; but in drawing such conclusions from a sharp distinction in types of royal residences, we are on safer ground than if we used for a similar purpose the changes in plastic or decorative style. The architectural features may fairly be assumed to indicate a great fact in prehistoric *Ægean* politics, namely, that the island area was originally under the dominance of a Cretan civilisation, and that only in the latest prehistoric time, if at all, was the centre of gravity shifted to the Greek mainland.

Before this, however, certain changes seem to have taken place in the distribution of power. The South *Ægean* isles, at first dominated by Crete, perhaps asserted independence and began to react on their former mistress. An 'intrusive *Ægean* influence' is inferred by Mr Evans from the fact that counter-importation from Melos into Crete begins to show evidence of itself in the stratum containing the earliest remains of the second palace at Knossos. He even suggests that this new power may have 'contributed to the catastrophe' which brought about the end of the first period of that second palace. There are other signs among remains of this epoch that some dynastic change, at least, took place in Crete, notably the fact that the script underwent a distinct and sudden modification. The original linear characters, used both at Knossos and in the south of the island, as illustrated by the tablets found at Haghia Triadha, were discontinued; and a variant system, taking their place, became characteristic of the whole second period of the later palace, i.e. roughly, something more than the third quarter of the second millennium B.C. But Mr Evans is too sane an

archæologist to infer any *racial* change. The fact that similar groups of signs recur in both varieties of the linear script points to essential continuity of language; and, indeed, in the artistic history of the whole pre-historic period in Crete there is too continuous a process of development for racial changes to be probable. At the most, the ultimate revulsion of north against south may be thought to have been due to the intrusion of some small alien caste of warriors, not numerous or cultured enough to affect the general character of Ægean civilisation. If this caste introduced certain modifications into the details of life most nearly concerning itself, for example, the fashions of palace-fortresses and of arms, it was all it was able to do. That much, however, is possible; and we commend the inference to Professor Ridgeway, with whose published views as to the 'Achæans' it can be brought, up to a certain point, into accord.

On the local development of the Ægean civilisation, Mr Evans' discoveries have thrown a clearer light than any previous researches. His preliminary observations upon Knossos, further co-ordinated by his assistant, Mr Mackenzie, in two valuable papers contributed to the 'Journal of Hellenic Studies' and the Phylakopi volume respectively, show beyond cavil that Ægean art developed continuously from the rudest origins on Cretan soil, and that there was artistic production there at an earlier period than elsewhere. Perhaps nothing that Mr Evans has demonstrated more instantly compels assent than his early dating of the origins. Yet it is curious to note how reluctant the learned world still is to accept this inevitable revolution in its chronology. In a few minds the spell of Archbishop Ussher is still potent. In more there shows itself a certain uneasiness lest the focus in which the classical age of Hellas has long been studied be confused by an indefinite lengthening of the vista behind. In most there is a not unreasonable suspicion that '*omne ignotum pro magnifico*' goes for something in the dating of high antiquity. But, on the one hand, there is no *a priori* objection to assuming civilisation to be at least as old in the Ægean as in the Nile valley. We are dealing, as we now know, with neither a local by-product of another civilisation nor a petty and confined social development, but with an indubitably indigenous culture comparable

to any other of antiquity in the range of its social achievement. On the other hand, the positive evidence of synchronism between early *Ægean* and early Pharaonic epochs is now conclusive. Since the main points have just been restated with great clearness in Mr Flinders Petrie's 'Methods and Aims in Archæology,' it will be sufficient to say here that, while the later period of the eighteenth dynasty has been abundantly proved to be contemporary with the epoch at which the grave circle on the Mycenæan Acropolis was closed, a chain of irrefragable evidence relates Cretan objects to the twelfth, sixth, fourth, and first Egyptian dynasties successively.

The earliest of these objects, however, are not the earliest products of *Ægean* civilisation, not, at least, at Knossos. It was reserved for Mr Evans to investigate a deposit of human artistic remains in the *Ægean* earlier than any Pharaoh. Down to the death of Schliemann, the most primitive *Ægean* deposit known was the first, or lowest, stratum at Hissarlik; and this was regarded as true neolithic. The stratum overlying it, however—Schliemann's 'Burnt Ilios'—could be referred to nothing earlier than the full bronze age. There was, then, a wide chronological gap, in which the stone age must have given way to the 'chalcolithic,' and that, in turn, to the age of bronze. But trace of these changes there was none at Hissarlik; and the difficulty was explicitly stated in the final publication, 'Troja und Ilion,' issued two years ago by Schliemann's colleague and successor, Dr Dörpfeld. Knossos has now solved the question: the beginnings of Hissarlik have fallen into their proper place. Comparison of the earliest Trojan potsherds, which have incised ornament filled with white, with the earlier Knossian, shows the former to correspond with the latest sub-neolithic fabric of Knossos—a fabric contemporary with the first introduction of metal, i.e. of copper, and with the first structures in stone that were raised on the site. The beginnings of Hissarlik, therefore, are not truly neolithic at all, but of Mr Evans' 'early Minoan' epoch, which just preceded the introduction of painted geometric decoration on pottery. This epoch receives its fullest recognition and description in his latest report. If it represents, however, the beginning of Hissarlik, it is far later than the beginnings of Knossos; for on certain

parts of the latter site* is a yet lower stratum, from six to seven metres thick, resulting from the débris of remoter ages, when stone was the only material for arms and tools. In the words of Mr Mackenzie:—

‘At Knossos . . . the range of discovery covered a very wide field, extending from a remote prehistoric era as yet unrepresented in the results of any discoveries in the Ægean, through a period which has to be correlated with the earliest yet known in the Cyclades to a time when, apparently, equally in Crete and in the Cyclades, the Ægean civilisation had reached its prime.’ (‘The Pottery of Knossos.’)

In the chronology of Ægean antiquities, so far as it is to be deduced from architectonic and decorative styles, Knossos has proved more instructive than any other site, because there alone the richest and most various remains have been found stratified in an orderly sequence from first to last. Hissarlik and Phylakopi are not so old, nor did they yield such a rich and continuous series. Nor can Phæstos rival Knossos in this respect, though M. Pernier says:—

‘Pare che a Phæstos la successione degli strati piu antichi corrisponde a quella osservata dall’ Evans a Knossos, mostrando sopra gli avanzi neolitici le tracce d’ uno strato dell’ epoca di Kamares, e su questo lo strato miceneo.’

For, apart from its greater poverty of evidence, Phæstos has nothing to show of the very earliest periods. The most primitive ware there found was of the incised class, which lies high in the neolithic strata of Knossos, and is associated with obsidian knives, whose importation from Melos did not begin till near the close of the stone age. Haghia Triadha, again, though blocks have survived from an earlier villa than that actually revealed by Professor Halbherr, was of comparatively late foundation. Knossos, on the other hand, was a powerful city during the whole ‘Ægean period,’ from the early neolithic to the latest age of bronze. In the closing years of the prehistoric time it had, perhaps, fallen from its high estate, and was only partially occupied. Then came some overwhelming catastrophe, probably the irruption of iron-using warriors

* E.g. the Central Court: see plan.

from the north; and the palace site knew neither kings nor even inhabitants of lesser degree till far into the classical age. Indeed, no remains of historic times much earlier than the Roman conquest have been found upon the greater part of the site.

In the long history of Knossian development Mr Evans has been able to distinguish, relate, and even date with approximate certainty, a number of successive subperiods; and his chronological scheme will probably remain a standard by which all *Ægean* remains, where-soever found, must be tested. The distinction and procession of subperiods is expressed best, as in all archaeological chronology, in terms of pottery, the most ubiquitous, indispensable, and persistent product of human skill. Beginning with the rudest, unburnished, and undecorated ware, we note decoration coming in with geometric incised patterns. These are presently emphasised by a filling of white, to which, later, red, and perhaps yellow, ochres came to be added. We are now on the eve of the introduction of pigment, and already past the neolithic age; we are in the early Minoan, in which the stone palace was founded and metal tools were first used. Contemporary with this, the production of decorated pottery was beginning in the Cyclades and the north of the *Ægean* area; and the sixth Pharaonic dynasty was reigning on the Nile. Before this subperiod is at an end ware decorated in two monochrome schemes has come into use, wooden in form and angular in ornament, which, about the date of the eleventh Egyptian dynasty, was to develop into the beautiful polychrome pottery, with spiraliform decoration, of the middle Minoan age, the first of the two golden periods of Cretan art, and the great era of the early palace. As the end of the third millennium approaches the forms and ornament show signs of incipient degradation; the royal building is remodelled, and the later Minoan age, the first period of the 'Later Palace,' begins.

So far there is no evidence of any dynastic or political change. Artistic development follows a peaceful and natural course. But somewhere about the middle of the second millennium B.C. some political change took place; new influences came into Crete; the Knossian palace was once more almost wholly rebuilt, but mainly on

the old lines; the fashion of writing changed; art received a new stimulus, mainly in the direction of naturalism. We find ourselves in the 'Mycenæan' age, that of the earliest graves in the Mycenæ circle, for example, the fourth. The old artistic producers of Crete produced still, but perhaps their rulers were alien. It was a brilliant age of revived art, the second golden period of the palace, but, it seems, short-lived. While it lasted, Crete seems once more to have been the dominant centre of the Ægean. Its old-established technique of glazed pottery, having developed new forms and patterns, spread over all the area. But quickly the decorative motives became stylised and the forms mechanical. The power and wealth of Knossos declined; and the Palace finally underwent some great general destruction. This was, however, long before the end of the millennium; for the latest pottery of the Second Palace has not reached the stage of degradation marked by the 'Mycenæan' vase fragments of Tell el-Amarna, which must be referred to a period not later than the reign of Amenhotep IV. Thereafter the site was never again in its entirety a royal residence; though some restoration was carried out in its eastern part, which had formerly been the domestic quarter ('Queen's Megaron,' etc.). Some of the other ruins seem also to have been patched up and used as separate houses. During the past season, of which Mr Evans has not yet issued any report, a series of graves has been opened at Knossos which belong to this period of partial reoccupation. They show pottery lineally descended from that of the later palace, and fine bronze weapons of purely south Ægean types. It seems, therefore, that no general change of race had followed the destruction of the old palace. The Minoan civilisation continued uninterrupted its course of decadent development; but the Knossian kings had moved house to some other site, not yet found. If any crash there was, it came later still, about 1000 B.C. About that date the 'sub-Mycenæan' style passes into the 'geometric'; new vase forms appear, the fashion of dress which requires *fibulae* (safety-pins) comes in; signs of cremation and iron weapons begin to be found in the graves. But even then in Crete, as in Cyprus, there seems less evidence of a break in the development than on the main-

land. Possibly, therefore, in Crete there was no sudden and general conquest, but only a gradual infiltration from the north during the uneventful centuries which link the prehistoric to the historic age of Greece. But, when the long process of decay was checked, and, under new impulses, the old spirit revived to form classic Greek art, it breathed more freely on other Hellenic shores than on those of Crete.

The range, the numerical and intrinsic bulk and the artistic excellence of the Knossian finds compel scholars to revise their whole conception of the *Ægean* civilisation. In the nineties it was generally accepted that the Mycenæ treasure and the royal building at Tiryns represented the culmination of the *Ægean* culture; but, magnificent as in their diverse ways both were, they left in many respects on the beholder an impression of something considerably less than the highest art as represented in contemporary Egypt or the East. The Tirynthian palace, with all due credit to its solid construction and plenitude of decoration, had elements of rudeness and meanness; those among the gold objects from the shaft graves, which must have been of local manufacture, suggested to critics the epithet 'barbaric'; and, even if these critics did not refer the finest objects to a foreign source (as many did), they saw in them a derivative art, whose prime had been spent elsewhere. Moreover, this 'Mycenæan' civilisation appeared, at its highest point, to have remained below any form of literary expression higher than that of a rock-scratching Indian. The age, it was said, was mute, and, further, one of very primitive religious belief, having no cult but of a rude aniconic sort, slightly affected by the Semitic Nature-goddess. Finally, the Mycenæan people was believed to have been dependent on alien intermediaries for all commerce with the elder civilisations, and, indeed, for communication between its own little seats of power. It was 'ignorant of the sea.'

These views, whatever their justice in respect of Schliemann's discoveries, have ceased, since the exploration of Crete, to have any general application to the '*Ægean* age.' They are invalidated, if by nothing else, by the established fact that Mycenæ is neither in date nor in products representative of the greatest period. This, the

'middle Minoan,' is wholly antecedent to the florescence of Mycenæ; while, even in the height of the so-called 'Mycenæan' period, a period, as we have seen, of revival of an art already on the downward road, the centre of gravity was not in the Argolid. Mycenæ, compared with contemporary Knossos, appears provincial. The remains neither of its palace nor of its private houses can compare with the Cretan. Our standard of Ægean domestic architecture must be taken henceforward from the great piles of Knossos and Phæstos, with their many storeys, their flights of stone stairs, their tiers of corridors, their light-wells and windows,* their sanitary contrivances, and their elaborately engineered system of drainage. For lesser buildings, we have a scale running down from the villa at Haghia Triadha, with its beautiful frescoes, through the Knossian 'pleasaunce,' with its grandiose double-headed stair, to the common type of house with gypsum dadoes and gypsum floors. But the meanest house yet found at Knossos is superior to any building, less than a palace, found on the Greek mainland. Apart from all other features, the geometric regularity which characterises the Cretan ground-plans belongs to a higher order of architecture. M. Pernier says of Phæstos: '*Nel suo primo piano domina la più stretta regolarità geometrica: l'area è stata ripartita come per mezzo di un reticolato.*' Such regular schemes, carried out, in spite of the accidents of sites, by means of elaborate terracing and cutting away, again remind us of the great plans laid out on the level surfaces of the Nilotic and Euphratean plains.

The character of the internal decoration of the Knossian palace, and the immense variety of objects which local art has there embellished, have silenced for ever any suggestion, not only of the non-Ægean provenance of the finer 'Mycenæan' things, but also of the derivative nature of the art they evince. Whatever influence of alien art the Ægean may show in its later phases, when the civilisation had become cosmopolitan, the essential excellences of its style and handiwork are now confessed to be its own. A glance through the British and Italian reports convinces the critic of a truly amazing amount of artistic

* See south-eastern part of plan.

effort and achievement, all stages of whose development can be traced. No longer do a few objects stand out in solitary excellence, without evidence of the processes by which that excellence was attained, as did the inlaid daggers of Mycenæ and the goblets of Vaphio a few years ago.

The Candia Museum is now a gallery of all the arts. Take, for example, the provinces of the painter and the sculptor. You may see there not only consummate uses of colour—of which there is no evidence on the mainland—on high reliefs in plaster of human and animal forms, and on crystal transparencies, but a wholly new miniature style of fresco painting, and an extension of the broader style, which has left traces on the Mycenaean and Tirynthian walls, to a wide variety of subjects—to landscape, to architectural pictures, to genre subjects, to the animal world on land and sea, and many forms of human activity, in fact to every kind of scene that can be represented on the flat without chiaroscuro. Of this art the villa at Haghia Triadha has yielded examples which surpass even the Knossian. The wild-cat fresco from its walls, treated with lively Egyptian reminiscence, and the wonderful sarcophagus, showing, perhaps, the cult of the dead, remain the finest things we possess from the hand of an Ægean subject-painter. When to these are added the superb bull's head in relief, and the miniatures of Knossos with the two marine subjects in fresco, one from that site, the other from Phylakopi in Melos, we turn away from the mural decorators of Egypt to the Attic painters of the fifth century for comparisons and parallels. Nor must painted pottery be lost sight of. In polychrome ceramic decoration the Minoan artists had little to learn. Mycenæ hardly prepared us at all for the revelation which 'Kamares' ornament has made; and to find anything like Knossian painted faience we must go to the Nile, not to Greece.

Of the excellence of Ægean glyptic work we had already a fair idea, thanks to the wide distribution of engraved gems, and their long conservation in use. But our knowledge of the subjects affected by the artists, and of the variety of their treatment, has been increased tenfold by the exploration of Crete, thanks to the discovery, first made there, of impressed sealings, which, through

some process of hardening after impression, not yet understood, have preserved the finest lines and the full excellence of the gem types. In this field Crete has also proved that the Ægean artists practised a new and delightful art, hitherto supposed to be of much later origin—that of cameo-relief. The Cretan cameo work differs from the Græco-Roman in that the lapidary cut across, and not along, the planes of his crystal.

The sculptors, too, have revealed themselves as never before. Examples of their work in the round on a large scale are still very rare; but that such examples there were is sufficiently proved by the marble hand of a woman and the fragments of a steatite bull found at Knossos. Even did these not exist, we should know from the lioness gurgoyle and the alabaster shell vases found by Mr Evans in his first season, that Ægean artists were able to model in hard materials. How softer material could be manipulated in that age, such masterpieces as the steatite vases of Haghia Triadha and the ivory *bibelots* of Knossos would teach, even were there not already in existence the ivories of Spata and Enkomi. Where moulding, rather than modelling, is required, the plastic artist had advanced equally far, as the counterfeits of Knossian plaster-reliefs, shown two winters ago at Burlington House, were enough to prove. Moreover, the spirit which informs all this art with life is as eloquent of the high quality of Ægean civilisation as all the technical excellences. An ever present consciousness of an ideal, and aspiration thereto through faithful study of nature, were observed in Ægean art before Crete was explored. But the much greater body of artistic evidence offered by the southern island has brought home the truth to many who did not fully realise it in face of the earlier discoveries.

As for the imputation of being without letters, Mr Evans may be said to have removed that discredit from Ægean civilisation before ever he put a spade into Knossos. A large variety of characters incised on pottery had come to light in Melos also by 1898. But these earlier revelations were to be eclipsed completely by those made in the first season of Cretan excavation on a large scale. The clay tablets, whole or fragmentary, which it was Mr Evans' fortune and right to find on the first Ægean

site he ever dug, number thousands. They are over 95 per cent. of the whole number found in all the Ægean up to the present. Phæstos yielded only two specimens; Haghia Triadha fragments of some two score; Zakro and Palaiokastros only three between them. Outside Crete no tablets have been reported, though 'Cretan' characters have been found on pottery. Such distribution indicates that the clay tablet was not a common vehicle for writing, but was used, probably, for some official class of documents, and that, perhaps, in Crete only. They might, for example, be records of tribute; and, if such they are, it is not wonderful that they should be found in greatest quantity in the royal residence of the chief prehistoric city. Ordinary documents and letters must have been of more perishable material, such as wood, skin, palm-leaf, or papyrus. Although not a trace has been found of these, the number of clay-sealings which occur on the site seems to indicate their former existence. Mr Evans has actually found legends written in ink or black pigment on pottery; and Professor Halbherr reports *graffiti* on the walls at Haghia Triadha. These argue a wider diffusion of the writing art than could be inferred from incision on clay.

The earliest Knossian tablets show a conventional hieroglyphic script, and are not numerous. The bulk belongs to a linear system which was hardly, if at all, in use in the earlier Minoan ages. The oldest of this class correspond with those found at Haghia Triadha, and form a distinct variety, expressing, however, to all appearance the same language. Mr Evans has made out the system of numeration; and, to judge by the pictographs and the form of the majority of the tablets, we have to do with tallies recording the divers objects stored in the palace magazines. Beyond this measure of interpretation, neither the discoverer nor any one else seems to be able to advance as yet. Neither can the meaning of any group of symbols be guessed, nor the phonetic value of any one character be determined; and, even were phonetic values known, we should hardly be nearer interpretation, for, to judge by the Eteocretan inscriptions of Præsos, the early word-forms of Crete are very remote from known Indo-European forms; and the decipherer's dilemma would be even greater than in the

case of Etruscan or Lycian, for there is little or no hope of a bilingual Cretan text. If anywhere, it is in Egypt that such a text ought already to have come to light.

The question of Ægean religion is the most difficult in the field of Ægean study. On no other has the exploration of Crete thrown more lights; but the lights change and cross, and do not even yet permit clear vision. Moreover, the evidence on this subject, as is always the case with ancient religion, is difficult to obtain uncontaminated by the predilections of the researcher. Alike in the provinces of anthropology and archæology, the personal equation seriously affects all discussion of religious belief and practice. One explorer will find evidence of cult where another will see none; but all will be disposed to look for it, since it is the most interesting thing that comes into an archæologist's view, and brings him nearest to the mind of the race which he is investigating. Mr Evans' personal interest is evidently most strongly enlisted in this study; and he is never loth to discover a sacral significance. In fact he ascribes it in these reports to objects and phenomena so many and so various that he leaves us a little bewildered and fain to take refuge in suspension of judgment till the publication of his final account. This much, however, we must allow at once, that, even if a religious character be conceded to all objects for which he has claimed it, there would still be fewer material documents surviving from Knossian cult practice than the quality of Knossian civilisation justifies us in expecting. It is probable that a social organisation so long established and so complex as the Cretan had a religious basis advanced both in spirit and ritual beyond the primitive religious systems of mankind.

It is impossible to do justice to this aspect of Ægean archæology except at great length; and the most that can be attempted here is to estimate the sum of the Cretan contribution to the problem. It seems to us, in spite of Mr Evans' constant insistence on evidence of 'aniconism,' both in his Knossian reports and in his weighty treatise on 'Mycenæan Tree and Pillar Cult,' that his explorations have done much to demonstrate the 'iconic' nature of Ægean worship from the full

Minoan period forwards. It appears to emerge clearly from the Knossian evidence, as Mr Evans himself has stated, that the Knossian creed personified its chief religious conception in female form. The goddess who appears so often on seals in paintings, and as a cult-idol, has so many attributes in common with the west Asiatic Nature-goddess that there can be little doubt that she, too, was a divinity of the generative principle, chthonian in some aspects, as lady of the buried seed and the buried body, erotic in others, as embodiment of the sexual instinct to reproduce. She has been suspected in the *Ægean* ever since Mycenæan remains have been explored; but Crete has first shown her native and predominant. Whether a male divinity, a male member of a divine pair, born of her and in turn wedded to her, is to be associated, is more doubtful. Mr Evans, for his part, however, apparently has no doubt of this, in view of the later connexion of Zeus with Crete; and he interprets certain figures, shown on seal impressions accompanied by lions, as representing this god. But no certain cult-idol of this god has been found at Knossos, nor any certain representation of his worship. If he existed side by side with the goddess in Cretan creed, he was subordinate, as he appears to have been in the earlier religion of Asia Minor. Perhaps it was only at a comparatively late period, when a matriarchal system was giving way, that he came to the front and stamped himself on Greek tradition as Zeus of Dictæ and Ida, the god of battles.

Belief in this goddess, or this divine pair, was the essential fact of *Ægean* religion; but we get from excavation, as is to be expected, more illustrative evidence for the incidents of the cult-practice which proceeded from that primary belief—for something like a cult of the dead man, for example, who returns to the bosom of the mother (this on the Haghia Triadha sarcophagus); and possibly for a symbolic ritual observed before ancient fetishes such as pillars and trees, sacred horns, and double axes, which was also subordinate, and, it should be observed, is less compatible with a very primitive than with a relatively advanced stage of ritual practice. Mr Evans, however, does not take this view of the later Cretan aniconic cult objects. In his opinion they were not

symbols but always fetishes, holy as actual abodes of a spirit, and belonging to a lower order of religious ideas. It is, perhaps, impossible to prove that they were one more than the other. Opinions will differ according to the estimate formed of the general standard of civilisation testified by Minoan remains; and some will hold high art not incompatible with low ideas of religion. Perhaps the truth lies in compromise. The symbols of the better educated often remain the fetishes of the vulgar. The double axe may well have served both functions in later Minoan Crete.

Further, be it noted, the cult objects, reasonably so regarded, which have come to light on prehistoric Cretan sites, afford abundant evidence, direct and inferential, of anthropomorphic conceptions, and little, if any, of theriomorphic. Those monstrous shapes, compound of bird, beast, and man, which appear in great variety on gem-sealings, seem to be proved by their infinite variety to have been rather heraldic fantasies than presentations of the divine. They were, in fact, signet devices, subject to infinite modification for obvious purposes of utility; while of those types which seem to show monstrous dæmonic shapes performing or accepting ritual homage—even if such interpretations be correct—it must be said emphatically that they are too few to be taken as evidence of a racial theriomorphic cult, although, at the same time, there would be nothing surprising or inconsistent with the history of human superstition that monstrous personifications of evil or terror should have co-existed with a prevalent anthropomorphic conception of divinity.

Hardly less seriously have our ideas concerning the external relations of the Ægean peoples in the prehistoric age been affected by Cretan research. It had long been recognised that Mycenæan art, in its higher efforts, showed considerable trace of Egyptian influence; while the presence, on the one hand, of indubitable Egyptian *bibelots* in Mycenæan deposits on the Greek mainland, in Rhodes, and in Cyprus, and, on the other, of Mycenæan pottery on certain Egyptian sites, was taken to prove some degree of commercial relation between the Ægean area and the Nile mouths. This inference, however, did not greatly impair—indeed it rather strength-

ened—the existing belief, based on Homer and the Hellenic antiquaries, that the Phœnician Semites had a virtual monopoly of sea-borne trade in the prehistoric Levant; and by their mediation, it was still supposed, both the artistic influence and the products of Egypt reached the Ægean area. Even the 'Kefti' tributaries, who are shown bearing vases of typically Mycenæan forms in Theban wall-paintings of the eighteenth dynasty, were interpreted as Phœnician. The number of indubitably foreign objects found on Ægean sites up to the close of the nineteenth century was very small; the Egyptian artistic influence was discerned only in a very select class of the finer Ægean products. There was no sufficient reason, in a word, for supposing that Ægeans or Egyptians were personally familiar with each other's homes; and the conspicuous absence of any but derivative and highly stylised marine motives in Mycenæan decoration, and of representations or remains of nautical apparatus, was taken as confirmatory of Mycenæan unfamiliarity with the sea. Indeed some archæologists went so far at one time as to deny to Mycenæan society all knowledge of fish food.

Some of the minor grounds of this general conclusion were weakened before the exploration of Crete began. At Phylakopi, for example, as the published report now proves, representations both of galleys and fishermen were observed on pottery; and the beautiful 'flying-fish' fresco sufficed to dispel any doubt that an Ægean artist had personal familiarity with marine models. But it was reserved for the Cretan explorers to demolish the major premiss of the Phœnician theory by showing that the Kefti tributaries, in the fashion of their hair and dress, offer so close a parallel to figures on Knossian frescoes that the probability of their having been actual Cretans was of the strongest; further, that the architectural, formative, and decorative influence of Egypt, clearly discernible in Cretan products, was of a range and character which imperatively demanded a revision of the theory that communication between Egypt and Crete was indirect and only occasional. Even taken alone, Mr Evans' discovery that the Ægean prehistoric systems of writing had no obvious relation to the Phœnician was sufficient to outweigh any later tradition of a Phœnician com-

mercial supremacy in the area and at the epoch in which that writing came into use.

Articles of possible Cretan importation, of various ages, have now been observed in Egyptian deposits. The black vases from Abydos containing colouring matter, on whose evidence Mr Petrie insists in his 'Methods and Aims,' if truly Cretan, would take commercial relations back to the epoch of the first Pharaonic dynasty; but Mr Evans doubts their *provenance*. In any case the fragments of liparite and diorite bowls, of Egyptian fabric, recorded by Mr Evans in his third report as having been unearthed at Knossos, are of the earliest dynastic times. In presence of these venerable witnesses, the 'Old Empire' style of a Cretan lamp, the 'Kamares' potsherds found in the Fayum, a diorite statuette of the thirteenth dynasty, and an alabaster lid of King Khyan occurring at Knossos, are not less to be expected than the late Mycenæan pottery of Tell el-Amarna, the derived Egyptian gods carved upon a Phæstian shell, the Nilotic type of Cretan house, or the Nilotic vegetation adapted to native vegetable forms in Cretan art. That Egyptians voyaged to prehistoric Crete is probable; that Cretans voyaged to Egypt is, in view of the Kefti pictures, certain. Moreover, evidence for the frequent commerce of inhabitants of various islands and coasts within the Ægean area is abundant. The Phylakopi volume shows that, in the period of the Second City, such 'middle Minoan' products of Crete as Kamares polychrome vases and steatite bowls came freely into Melos, and that possibly the finest wall-frescoes were imported as panels in wooden frames from Knossos. On the other hand, not only vases of Melian fabric went to Crete, but obsidian knives, for whose manufacture Melos alone in the whole Ægean area possessed the necessary material, were in common use on all the circumjacent coasts. Identical gem types have been found in Crete and in Laconia; most authorities now regard the Mycenæan inlaid daggers as of Cretan fabrication, on the ground that nothing among the certainly indigenous products of the prehistoric Argolid can prepare us for the amazing technique of those weapons. It is needless to multiply examples. These are more than enough to dispel any lingering belief that the fleets of Minos or of Agamemnon were fantasies of poets.

Discoveries which have given to an ancient civilisation so high a place in human history as that which must now be conceded to the *Ægean* culture involve it also in more serious problems than it had suggested while believed to be only an inconsiderable episode in social development. The most important of these problems, and the one which has already roused most strife, is concerned with the possible parental relation of *Ægean* culture to that of later Hellas. Many Hellenists seem to be irritated by any suggestion that the art of the great classic age was rather a renaissance than a new creation, and that the essential germ had existed and fructified in the *Ægean* area in prehistoric times. The discoveries of each successive season at Knossos, however, make it appear more probable that not only Greek artistic motives but the Greek artistic spirit have a prehistoric pedigree which was far longer than was once supposed. In fact, since Mr Evans' exploration of the late 'Mycenæan' graves at Knossos, and his studies and those of other scholars in the succeeding 'Geometric' period in Crete and Greece, as illustrated by finds in caves and tombs, it has become increasingly difficult to find a clear break at any epoch between early *Ægean* art and that exemplified in the oldest strata at Olympia. Before continuity can be satisfactorily established, however, we shall have to know more of early religious creed and rite, of early *Ægean* skull-forms and *Ægean* languages—points on which evidence as yet is defective, ill-marshalled, and obscure; but it is quite time already that the 'devout Hellenist' schooled himself to accept an enquiry conducted on the Hellenic principle of following the argument whithersoever it may lead. Mr Evans, at any rate, is never afraid to follow it. In the practice of this virtue, if no other, we have no better Hellenist.

D. G. HOGARTH.

Art. IV.—THE POLISH NATION.

1. *Rzecz o Roku 1863 (The Truth about the Year 1863)*. By Stanislaus Kozmian. Three vols. Cracow: Polish Publishing Society, 1891. (German translation by Landau. Vienna: Konegen.)
2. *o Działaniach i Dzielach Bismarcka (Bismarck; his doings and achievements)*. By Stanislaus Kozmian. Cracow: Czas Press, 1902.
3. *Przegląd Wszechpolski (The United Poles' Review, or Organ of the National Democrats)*. Cracow, 1902.
4. *Nasza Młodzież (The Rising Generation)*. By 'Scriptor.' Cracow: Anczyz and Co., 1903.
5. *Dzieje Zniweczenia Unii (Destruction of the United Ruthenian Church)*. By Father Ladislaus Chotkowski. Cracow: Polish Publishing Society, 1899.
6. *The Expansion of Russia*. By F. H. Skrine. Cambridge: University Press, 1903.

'In this God's world . . . where men and nations perish as if without law, and judgment for an unjust thing is sternly delayed, dost thou think that there is therefore no justice? It is what the fool hath said in his heart. It is what the wise in all times were wise because they denied, and knew for ever not to be. . . . My friend, if thou hadst all the artillery of Woolwich trundling at thy back in support of an unjust thing . . . I would advise thee to call halt, to fling down thy baton, and say, "In God's name, No!" Thy "success"? Poor devil, what will thy success amount to? If the thing is unjust, thou hast not succeeded; no, not though . . . the just thing lay trampled out of sight, to all mortal eyes an abolished and annihilated thing.'*

Carlyle had no particular love for the country we are writing about, and certainly was not thinking of it when he penned this magnificent passage. Yet it is peculiarly applicable to Poland, and never more so than now. There is some justice in whatever happens; and we must own frankly that the Poles deserved the fate which fell upon them in 1772. It served them right, for it was their fault that the land was given over to anarchy. In the same sense we say that a householder who leaves doors

* Carlyle, 'Past and Present,' cap. ii, 'The Sphinx.'

and windows open at night, and is robbed by burglars, is rightly served. Yet we still persist in thinking that the burglars have done wrong. Whatever may be said to excuse the three Powers who profited by their neighbour's weakness, no plea on earth can justify what they did. The laws in Poland were all but a dead letter: was that their business? The country was torn by dissensions, convulsed by rebellions: who fomented them, and by what right? There were even traitors who called for their intervention: but who paid the traitors? All this is on record. But, though history tells of the retribution which came upon Poland, it has not yet said its final say.

Nevertheless, justice apart, the idea of a partition, first entertained by Frederick of Prussia, and eagerly taken up by Catherine II, and not unwillingly by the Emperor Joseph II, had many claims to be thought an admirable stroke of policy. Three great Powers against one weak nation, unable to govern itself, rent by factions, and with neither allies nor natural frontiers, were heavy odds. Judging from the state in which the nation then was, they could hardly expect any resistance at all; and such as might be made would only serve to draw the three Powers nearer to each other. As Frederick somewhat profanely said, the body and blood of Poland would be a sacrament of communion, to bind them in everlasting friendship; and, indeed, there has been since that time only one war between any two of the three. The work of assimilation, they made no doubt, would take a good many years; but that would be more than compensated by the blessings of peace and the community of interests accruing to each. And so one of the largest States in Europe, and one of the most fertile, passed into the hands of new rulers:—the Russian autocrat, whose capital, formerly taken by the Polish monarchs, had not been deemed worth the trouble of keeping; the Prussian king, whose ancestors had sworn fealty to Poland, and sought its protection; and the Austrian Emperor, whose capital Sobieski had saved from the Turks eighty-nine years before. This, as a stroke of political daring and foresight, has perhaps no parallel in history.

Yet those who planned it overlooked one thing—only one—the spirit of the nation. If the three despots knew

anything at all about patriotism, which is doubtful, they may well have held Polish patriotism at the time cheap enough. It was not, however, dead, but sleeping, soon to awake and manifest itself, first, by a series of convulsive efforts to regain lost freedom; and then, when these had proved ineffectual, by the steady development of every resource, both material and spiritual, which might tend towards that goal. It is indeed a truth that never since the first partition has the life of the nation been so vigorous, so abundant, as at the present day, pervading as it does now every class of society, from one end of the scale to the other; so much so that, even at the risk of being called paradoxical, it may be said that the partition of Poland was perhaps a providential means of saving that life. For who knows how long the nation could have endured that utter paralysis of law and order which prevailed in the last days of independence? and whether the spirit of indifference to the good of the country, already rife amongst the upper classes, would not soon have gone downwards, until Poland had become a mere name, and its people were ready to welcome any government, provided only that they were governed?

All men are fallible; and those great politicians committed the vulgar error of judging from appearances. This was because they had failed to understand and take into account the most essential feature in the Polish temperament. The nation, as a whole, is characterised by individualism in its extremest form, each man being excessively tolerant of what others do, so long as it does not touch him or his, but not less jealous of his own rights or what he takes to be his rights; inordinately good-natured on the one hand, desperately resentful on the other. Such a people can live, though stupefied, in an atmosphere of anarchy by which any other would be destroyed. In his narrative poem of *Pan Tadeusz*, Mickiewicz gives us a not unpleasant picture of the life of Polish gentlemen in Lithuania, in 1812, though at the same time he tells of a little private war which took place among them. They lived quietly, as a rule, in peaceful lawlessness, now and then taking the sword when things went too far. This bias of character gives the key to much that is otherwise inexplicable in their annals. Thus, whilst many wars have been undertaken by Poles on frivolous pretexts,

fighting, as Shakespeare says of them in 'Hamlet,' for 'a little patch of ground that hath in it no profit but the name,' very few, save in the earliest times, have been wars of conquest; most were defensive, at least in intention; and they seldom enlarged their frontiers, even after the most triumphant campaigns. Lithuania, White Russia, Podolia, and Ukraine, territories more than twice the size of Poland proper, were indeed added to it, but without striking a single blow, and with the entire goodwill of the inhabitants. At one time Muscovy was almost a vassal of Poland; but, the country rebelling against that vassalage, the Poles, after a short and half-hearted struggle, let it have its own way. 'Why should not the Muscovites be independent of us?' they thought. 'We, who love our own liberty so dearly, ought not to take theirs from them.' Innumerable other instances might be adduced; but any one who has stayed long in the country, mixing with the people, will readily admit the existence of this peculiar combination of kindliness and petulance, which is, according to circumstances, either a blessing or a curse.

Plunged in a death-trance, Poland required the knife of the operators to rouse her, by striking at the most sensitive nerve of all. She was indeed roused, and passed, not at once but by degrees, from death in life to life in death. This has been the cause of all the spasmodic throes, the struggles and bloodshed of the last hundred years; thence, too, comes it that at the present day Germany feels the 'Polish danger' as a menace to part of the Empire; that the Government of St Petersburg has long ago recognised the impossibility of forcing the Polish nation into unity with Russia; that Austria, having taken the wise course of granting some amount of autonomy to the incorporated provinces, has found this semblance of independence to be the best means of eluding the bitter consequences of what has been done. This re-opening of the Polish question, which many thought to be dead and buried, is an interesting fact in contemporary history. We intend to pass rapidly in review the state of the country at this day in its three great divisions—the condition of parties in Poland, their various aims and ideals, and the general position of more than fifteen, perhaps not much less than twenty,

millions of the inhabitants of Central Europe towards their several rulers.

Since the first partition, three insurrections—the first under Kosciuszko, heroic and not without chances of success; the second, in 1831, rash and feebly led, yet requiring all the resources of the Russian Empire to put it down; the third, still remembered by many, hopeless from the first, and a mere act of desperation—have taken place within the Russian frontiers. Each insurrection led to repressive measures of increasing severity. It was not only the rebels themselves—shot, hanged, knouted, banished in thousands—who paid for these outbreaks. Even such deeds as the forcible seizure, by order of Nicholas I, of ten thousand Polish children to be brought up as Russians in Russia, were nothing in comparison to the persistent and relentless repression which was brought to bear. The spirit of the nation had asserted itself; and the spirit of the nation was struck at by striking at the owners of the land, its language, and its religion.

Comparatively little was done, because little could be done, in Poland proper. Plenty of confiscations, however, again and again took place; and the Poles are now tenants on many an estate belonging to an absentee Russian landlord. The language was degraded from its official position in the schools and elsewhere; pupils were forbidden to speak it, whether within the precincts of their 'Gymnasia' or in the street. At present it is taught for two hours per week, by special permission of the Emperor; but by means of Russian, as French grammar is taught in England by means of English. Russian, thus forced into the mouths of the young generation, was no doubt expected to become in time a pleasant morsel. Adults (and even schoolboys, when at home) were permitted to speak Polish. This could not be otherwise. Enough spies could not be found, nor enough money to pay them, to infest every house, and follow every man wherever he went. But the names over all shop-doors, all bills posted up, all public announcements, were required to be in Russian. In the case of shops, indeed, a Polish translation was suffered; but in the courts of law, in the post office and other government establishments, and even at railway stations belonging to private companies, the Polish

language was and is severely prohibited. It need not be added that the national costume and songs come under a like ban, and that newspapers are subjected to a rigorous censorship; but it is worth while to note that no Polish newspapers printed beyond the frontier are even admitted to the privilege of being censored. Any one coming from Galicia or Posen and having a parcel wrapped up in an old newspaper is sure to have it taken away from him, at least, if nothing worse happens. A man in Warsaw may get a Chinese paper from Peking, but not the 'Czas' or the 'Nowa Reforma' from Cracow.

As to religion, the principle of toleration proclaimed by Catherine II is still proclaimed; but practice is another thing. Political disloyalty cannot be borne; whatever is contrary to the claims of the State Church must be politically disloyal. Roman Catholicism is accordingly treated as hostile to Russia and favourable to Polish aspirations. Almost all convents have been closed; those that were spared, forbidden to receive new members, are almost all empty now. Secular priests live under the close surveillance of the police, like ticket-of-leave men in England. Without special leave from the governor of Warsaw, entailing, of course, endless vexatious formalities, they may not even take a drive beyond the limits of their districts: so that a clergyman may have to wait more than six months for the permission to visit a sick friend, if the district boundary runs between them.

It is true that of late years the clergy seem to have been treated rather more leniently; as the prison authorities might deal with a well-behaved convict, relaxing so far as possible the severity of the rules in his favour. The lower clergy—especially men who are on bad terms with their bishop, or who let encroachments on the part of the Russians pass without protest—are now treated with a certain degree of cautious indulgence. But this change of attitude, such as it is, by no means implies a change of policy. That it does not is abundantly shown by a secret document published in 1902 by the 'Przedswit,' a Lemberg newspaper of high standing, which vouched for its authenticity. The Russian authorities naturally stated that it was a fabrication; but the internal evidence it bears with it is so strong, and it sheds so much light upon the situation, that the statement may be overlooked.

It is an instruction from the Ministry of Public Worship to General Tchertkoff, then entering on his functions as Governor of Warsaw, and it is, indeed, very instructive. It states distinctly the fact that Roman Catholicism, because it sustains the national spirit, is the greatest enemy to Russia. Everything has been done to hamper its influence; but to destroy it is impossible. The priests appearing to be submissive, severity would be out of place just now, but the Government has a delicate and difficult task to perform. The higher clergy, being most strongly opposed, should still be treated with inflexible sternness and frigid courtesy, without any advances. In conclusion the document says :

'Our behaviour should tend rather to lull fanaticism than to stir it up; what we have to do may thus be done more conveniently and thoroughly. . . . Let us go forward cautiously, step by step, availing ourselves of every favourable circumstance, and carefully keeping on good terms with the Vatican.'

The document is curious reading. What they 'have to do' is clear enough. It is, as ever, by lessening the influence of the national religion, to weaken the national spirit, in the hope of destroying it at some future time; and they are, as chess-players would say, trying a 'close game.' But the Vatican is not generally credited with any excess of naïveté; it knows very well what they are about, and can play a 'close game' too.

The repressive measures which have been hitherto enumerated, though galling in the extreme, are nothing more. Even Russia has hesitated to take steps of assimilation which would seriously thin the compact population of Poland itself. But in the other provinces which formerly belonged to that kingdom, containing a large percentage of Poles and a strong leaven of antagonism towards Russia, severer measures have been adopted. In the southern provinces the proportion of Poles was about 10 per cent. before the last insurrection (1863); now it is barely 6 per cent. Poles then possessed 90 per cent. of the landed property; now they have only 47 per cent. The diminution in Lithuania and White Russia, though somewhat less, is yet very considerable. In the whole of these provinces, Polish landowners have, since 1869, been deprived of more than eight thousand English square

miles of property; and this not by confiscations, since the date given is six years after the rising of 1863, but in consequence of the system of laws applied to this part of the country. For in those regions, to be a Pole is to live under a ban. A Pole cannot enter any branch of the public service, nor so much as get a situation in a private railway company, without great and almost insurmountable difficulty. He may inherit land belonging to his ancestors, but not acquire any; he cannot even lend money on the security of land. Any clause of a will that gives him a life interest in an estate which he does not possess by inheritance is set aside. Nor may he farm an estate that belongs to another, nor administer it, nor be employed upon it in any capacity. If he is ruined, his property is sold, but only to a Russian; if he thrives, he must not increase his holding. No wonder that the Polish element has shrunk in those provinces during the last forty years.

Next, as to the language. Before 1830, there were computed to be one thousand primary schools from Lithuania to Ukraine—more schools for higher education than there are now in all—and two first-class colleges. In all of these Polish was taught. Not a single one exists at present; and, though there are about two millions of Poles still in these parts, they are forced to send their children to establishments where even the miserable two hours per week of Polish allowed in Poland proper are not to be had, and where pupils are severely punished if caught speaking a word in that language. Here the use of free speech is denied even to adults; here, papers which circulate in Warsaw are prohibited; Polish newspapers may be published in St Petersburg or Moscow, but nowhere throughout the territory between Wilna and Odessa; even Polish actors are not permitted to play there. It is, at least in Lithuania, a misdemeanour to speak Polish in a café, in the streets, in any public place. These are facts known to every one who is at all acquainted with the country, and they need neither proof nor comment.

Religion is, if possible, in a still worse predicament. Here we shall have to deal at some length—for it is essential to the subject—with the question of the Uniates, or United Ruthenian Church. When those immense pro-

vinces were united to Poland, many hundreds of years ago, the majority of the population followed the rites and doctrines of the Ruthenian Church, then separated from Rome; but the thought of religious unity soon occurred to them, and all the more readily because, as has been said, they had joined Poland of their own free-will, and the bitterness of conquest was never known to them. The Roman Curia went to the greatest lengths in their favour; communion was allowed to be administered in both kinds, and priests were permitted to keep their wives. A few slight changes were made in the old Slav ritual, a few Latin saints introduced; the 'Filioque' was inserted in the creed at mass: and all was done. The two clergies—Latin and Ruthenian—lived together henceforth in amity, educated in the same seminaries; and, at the time of the downfall of Poland, they seemed equally attached to their common Fatherland and equally hostile to Russia. This state of things was extremely embarrassing to the government, and, we may add, painful to Russian clericalism; but even Nicholas I saw no means of changing it. At this juncture, about the year 1827, Siemaszko, a high dignitary in the Ruthenian Church, stepped forward. In a secret memorial to the Tsar, he indicated the means by which the Ruthenians could be separated from Rome, and offered his services; and doing the deed, won thereby a name admired by some, execrated by others, as they held him for an apostle or an apostate. Which of these titles he deserved does not interest us; we need only inquire into the means he used.

Siemaszko, after his work was complete, when he had been fully rewarded by the Tsar, bethought him of posterity, and wrote his famous 'Memoirs,' for which we cannot be too grateful. Therein he sets forth both plan and execution with such abundance of proof and documentary evidence that we are bound to believe him, though we might almost suspect him of exaggeration, if his statements, where it is possible to check them, did not agree with other independent and hostile records. Armed with the power of the law, provided with ample pecuniary resources, he set to work even before he was consecrated a bishop and had sworn fidelity to Rome; afterwards he carried out his scheme with tenfold vigour. He had, we must confess with Father Chotkowski, a

wonderful knowledge of men, great sagacity in the choice of means, and that unlimited capacity for work which is said to constitute genius. In a short time he knew personally all the fifteen hundred secular priests of his church, and every one of the monks besides. He began by shifting his subordinates, as one shifts the pieces of a puzzle, separating them from or bringing them into hostile contact with the clergy of the Latin ritual; then he set himself to transform the church ceremonies—ritual, vestments, and furniture—until they were the exact counterpart of those used in the Russian services, degrading for their disobedience all priests who refused to conform. At the same time he took care, on various pretexts, to expel such as he felt sure would not follow him when the time came; and to educate the coming priesthood in seminaries of his own, under professors whom he had chosen. The extreme ignorance of the clergy, many of whom, as we find, could scarce write their own names, gave him an immense advantage; few of them so much as guessed what was coming. When he judged that all was ready, he threw off the mask, and commanded every priest to sign a petition, begging to be admitted into the Orthodox fold. Many knew not what it was they signed; some thought it was their bishop's affair, to whom they owed obedience; some who at first refused were imprisoned in convents and maltreated until they gave way for the sake of their wives and families, who were plunged in misery, and also of the gift in money which Siemaszko tells us he made to those who signed. A few held out till the end; Chotkowski gives us the names of a couple of hundred, with a short statement of their sufferings; the others have remained unknown.

The result of this defection, with regard to the cause of Poland, was incalculably great. From being masters in those provinces, the Poles had, at the time of the partition, become fellow-sufferers with the Ruthenians; they now became strangers. Siemaszko, though he bitterly complains of the contempt in which the Russians held him, had done more for the empire than any general in the nineteenth century. It was not an outlying province, like the Caucasus or Turkestan, that he conquered; a whole population, not much under ten millions of souls, adjoining Poland, and hitherto united with it in its

national life, was handed over to the Tsar. It is computed—though here exact statistics are impossible—that about one hundred thousand poor peasants still refuse to enter a Russian church; these are mostly Ruthenians living in Poland proper, where similar means, still more brutal, were employed under the mild Alexander II, and with like success. But the law considers them all to be 'Orthodox.' They baptise their own children, live (officially) in concubinage, pray together in the woods, or worship in Roman Catholic churches when they can and dare. Sometimes a missionary in disguise, whom Siberia awaits if he is discovered, finds his way to them to strengthen them in the faith. Of these the writer has known several personally, and listened to their strange experiences. Polish priests, officially recognised and paid by the government, dare not interfere. Until this very year, 1903, a fine of three hundred roubles—often more than half his yearly income—was levied upon any clergyman who, knowingly or not, heard the confession of a Ruthenian; and worse was in store for him, if this happened repeatedly. The penitent himself was dealt with as they deal with apostates in Russia.

About a year ago, indeed, a modification of the system was introduced. No man is henceforth to be punished for changing his religion; the priest is liable to the same fine as before, but only if he knows beforehand that his penitent is not a Catholic. Poles have learned to be thankful for small mercies; and for this they know well that they may thank the present Tsar. For, though much wrong is done in his name, Nicholas II by no means approves of it. He would really like to offer some relief to his Polish subjects, if he could do so without offending the Tchinovniks, or Russian bureaucrats; and quite recently his feelings towards the Poles have once more shown themselves. When all Poland, in 1902, was seething with indignation at the Wreschen trials, and parents whose children had been flogged for refusing to learn their catechism in German were rigorously punished because they had protested, it was remembered that in six Polish grammar schools the priests taught religion in the Russian language. In two of these the boys demanded that it should be taught in Polish henceforth, were refused, declined to frequent the courses

any longer, and were expelled. Since that time there has been no religious instruction in these colleges. Now the Tsar has just issued an ukase ordering that, from the beginning of the coming scholastic year, religion should be taught in Polish throughout the country. This, too, is a small thing, but it shows his feelings. The Poles know him to be a weak, but a well-meaning man; one who, if he should reign a hundred years, might possibly remove all their grievances.

Yet another fact of recent history may be cited in justice to the Tsar. Zwierowicz, Bishop of Wilna, finding that great numbers of children were sent to 'Orthodox' schools, in which the Catholic religion was attacked, after appealing in vain to St Petersburg, had at last, and in despair, published a message to his diocese, declaring that henceforth the parents of those children were not to be admitted to the sacraments. Any Roman Catholic bishop in the world would have done likewise. The effect was surprising; in one week two thousand children were withdrawn. Almost immediately afterwards, the Bishop was seized and sent in banishment into the depths of Russia. Such an act, however, could not be hidden from the Emperor, and he determined to reverse it. The scene which took place between him and his ministers, if it could ever be known, would be interesting. At any rate, after an exile of some months, Zwierowicz returned—not indeed to his diocese—the Tsar was not strong enough for that—but to the bishopric of Sandomir, in Poland. The order to his clergy still remains in force, and the directors of the 'Orthodox' schools have been forbidden to receive any Catholic children. Nicholas II acts according to his lights and to his strength; no more can be expected of him. And consequently the Poles—many of them—do not feel for him the hatred which they felt for his father.

All this, however, counts for very little while those oppressive laws are still in force, crushing down generation after generation. Moreover, the Poles know the Russians only by those amongst them, whose attitude is bitterly malevolent. The Tsar is in St Petersburg; but Tchertkoff is in Warsaw—Tchertkoff, whose domiciliary visits and arbitrary imprisonments and continual vexations of every kind are the plague of the country. The officials, too, stand together as one man, upholding every

abuse, shielding one another, exasperating the nation by their persistent ill-will towards everything Polish. Warsaw, we are told, swarms with spies, obstinate, audacious, following suspected persons about wherever they go, and scarcely deigning to conceal their business. The Tsar, some years back, gave permission for a statue to the great national poet, Mickiewicz, to be erected in Warsaw. By order of the police, every street was lined with Cossacks, ready to shoot or cut down the multitudes who came to see it unveiled, should any demonstration take place. After a short speech, the ceremony was performed in the presence of more than twenty thousand people. Not a cry of any sort was uttered; the whole assembly was hushed into death-like stillness. But we may be sure that they resented the outrage with all the passion of their passionate natures, and that the effect of what the Tsar meant as an act of kindness was completely obliterated. Such things, on a smaller scale, happen daily. To give only one instance, the Lutnia, a musical society in Warsaw, held its annual banquet in 1902, permission being of course previously asked of the police, which only consented on condition that no speeches should be made at the toasts. Then was seen a strange spectacle; a silent feast, someone at intervals getting up, pointing to another, and raising his glass, the rest of the company drinking the toast at the same time: all this in silence.

But there is far worse. An abominable abuse of justice—a criminal recently acquitted solely because he was anti-Polish and accused by Poles—deserves mention. Zieniec, a medical professor in the University of Warsaw, was director of an asylum for deaf and dumb girls. He had a key made to their dormitory. A frightful scandal took place; the affair was flagrant, and witnesses were in plenty. It was also known that he, being a professor in the Clinical Hospital of the Child Jesus, had committed rape upon several of his patients. There was no denying the facts; counsel for the defence could only plead that the accusation was political, since he was known as an enemy to Poles; and a letter by him denouncing to the police as dangerous conspirators the doctors who had accused him—written, be it noticed, after the scandal had taken place—was put in and accepted as evidence. This was enough; the man was set free by the judges—a

scandal surely far greater even than his crime. *Judex damnatur!*

Such, as seen in the light of some of the most recent facts, is the spirit of Russian officials in their dealings with the Poles. And though there are many indications that not only the sovereign, but public opinion as well (so far as public opinion can be said to exist in Russia), is far from unfriendly to the nation, the impression made by officialism far outweighs any other. Words of sympathy in books and newspapers abroad do not make the yoke at home any lighter. It is certainly not logical to visit on the Russians at large wrongs which they can in no wise redress; but it is very natural. As a matter of fact, the feelings of nearly the whole of the middle classes, especially the young generation, are feelings of compressed and concentrated antagonism to all that is Russian; instinctive mostly, for it cannot be openly organised, and secret organisations are rarely joined by men who have their bread to earn and can earn it. These, however, do exist, and not only Socialists employ them, but other parties as well; little can be known of them but by their effects; and the little known otherwise cannot in honour be published. Certainly much is done to educate the people politically, to strengthen the sentiment of solidarity, and thus to counteract the inevitable tendency of military service and the public schools.

The characteristic of resistance in this part of Poland is its intensity, of which the causes can easily be traced. The 'kingdom,' as it is called, is the richest of the three divisions, and one of the richest in the empire. There is perhaps more of commerce and industry here than anywhere else, save in the neighbourhood of Moscow. The land is fertile, and the taxes, high in comparison with the rest of Russia, are much lower than those levied in the neighbouring empires. Add to this that whereas in Posen and East Prussia nearly half the population is German, and the same proportion Ruthenian in Galicia, even Russian statistics show that here the purely Polish element is 75 per cent. In reality it is much greater; many peasants, officially set down as 'Orthodox' because their ancestors were found to have been baptised in Uniate churches, speak Polish and feel themselves Poles. It is here, too, that we find the majority of those Uniates

who have always protested against a conversion effected by force. And, lastly, the Jews in Poland proper for the most part consider themselves as of the nation, and indeed to a large extent form the most revolutionary part of it, in sharp contrast with their co-religionists in Galicia, who are quite indifferent, and in Posen, fiercely hostile to Poland. Jews are said always to side with the stronger party; here the saying is evidently untrue. In union with the immense majority of the population, and for reasons which may easily be guessed, they profess, and no doubt entertain, a fierce antipathy to the 'Moskal.'

The preceding facts, especially concerning racial and religious oppression in Russian Poland, will be found set forth, sometimes in greater, sometimes in less detail than we have found expedient, in Mr Skrine's remarkable work on 'The Expansion of Russia.' It is impossible to withhold our admiration at the amount of labour bestowed on this volume, the exactitude of the facts given, the conciseness and lucid order of their arrangement, and the consequent interest of the book as a whole. It may be permitted to differ from Mr Skrine now and then concerning his views of facts. When he says, for instance (p. 213), that the Russian policy 'stabbed Poland to the heart'—as it was indeed intended to do—we cannot but think that the expression is exaggerated. And a Polish patriot would no doubt take exception to the term 'assimilation,' employed a little later on the same page, though the material benefits of protection to Poland are set forth with striking truth in the paragraph where that word occurs. Until the laws which Mr Skrine so justly calls 'worthy of Draco himself' are repealed, assimilation is, we believe, an impossibility. But this is only a matter of appreciation. The important point is to give the facts, and this the author has done with correctness and impartiality.

The Poles who live in East Prussia and Posen are in a totally different environment. We find here the Germans engaged in a determined and systematic endeavour to get rid of them by civilised means, which are totally inadequate to the purpose, as they have to fight against natural laws, and are met besides by a resistance not a whit less determined and energetic. From the very

date of the first partition the Prussian monarchs aimed at substituting German for Polish nationality, and they succeeded so far that very nearly half of these provinces had become German, when the wars with Napoleon supervened, and Prussia had to fight for its existence. Emerging from the struggle, successful but exhausted, the Government made a truce with the Poles, and pledged itself to respect their language and nationality. The promise was kept to some extent, until Bismarck, at the height of his power, thought the time had come to break it. From the very first, as Kozmian points out in his admirable work, he had hated the Poles because they were not Germans, and despised them for a nation of dreamers. But before he went on the warpath to defend (as he phrased it) the Teuton race against the aggressive fecundity of the irreconcilable Slav, the great man should have reflected that if he failed to quench the national spirit, he might only make matters worse, just as blowing on a flame either puts it out or makes it burn more brightly. It was the latter that took place; others have been blowing since Bismarck's time, with similar results.

In the last ten years the Polish element in Prussia has increased by 10 per cent., and the Germans in the same provinces by 3.7 per cent. only. The figures are eloquent enough. It is true that, on account of the subsidy of 100,000,000 marks, recently doubled, and devoted to the purpose of buying out Polish land-owners, the total amount of Polish landed property has of late diminished, so that in Posen, for example, the Germans now possess 70 per cent. of the large, and 50 per cent. of the small holdings, threatening to wrest from the Poles the whole of the country which was the cradle of the race. Yet the struggle is stubborn. What is lost in the country is gained in the towns; and the peasants besides, now turned into open enemies of the government that would destroy them, rally round their homesteads with splendid heroism. During the last four years, in spite of the millions lavished, the number of small estates held by Poles has actually increased; the Germans have lost 56,000 acres of land in Posen, and in East Prussia 60,000 acres.

It was Polish disaffection, according to Bismarck,

which called for these measures; and as it grew greater in consequence, other means have been employed to turn the Poles out of the land, or make Germans of them. Against religion, and after the miserable failure of the *Kulturkampf*, it was clearly advisable to do nothing. Language was another matter; and the Germans, convinced of the superiority of their own, resolved to force every Pole to learn it, and even to have the Catechism taught in that language. The result was the Wreschen trials, about which everybody knows. But it was only one of a series of less flagrant acts of oppression which take place unnoticed almost every day. It is a much safer thing, if children refuse to say their prayers and Catechism in German, to notify the parents that those detested studies must be prolonged for another year; no corporal punishment could be heavier. Letters directed in English or in French reach their destination at once; but if the address contains a single word in Polish (e.g. Poznan for Posen) almost a week's delay must ensue; it has to be translated. Certificates of baptism are refused unless the child's name is given in German. A man who cries out in a tavern 'Poland for ever!' is fined for 'grossly indecent behaviour.' As to the liberty of the press, there exists a nebulous law allowing criticism of the Government, but forbidding agitation. Where criticism ceases and agitation begins is for the judges—German judges—to decide; the decision is against the Poles in any doubtful case, as hundreds have found to their cost. Certainly, these and other similar measures, after what has been said of the monstrous system of repression practised in Russia, read like mildness itself. But then they are executed with relentless severity by one of the most perfect administrations in the world, and by men who, unlike the Russians, are inaccessible either to bribery or to pity.

Strange to say, all this only serves to exasperate the people still more; of late, voices of louder and louder defiance have been raised. These again have moved to wrath the Emperor William, and he must needs raise his own. In a recent speech at Marienburg, he called on his German subjects to join in a crusade against 'Polish arrogance and self-conceit.' This speech excited such indignant comment in Poland that he hastened to explain

it away in a second allocution in Posen, saying that he never meant to interfere with national traditions or feelings concerning the past, and only wished Poles to be now 'good and loyal subjects of Prussia.' But to the German mind that phrase means the complete abandonment of all hopes, all dreams as to the future, however distant. Less will not satisfy them; they jeered in Parliament at Koscielski's conditional offer of loyalty. Even that is not enough; they would tear the Polish name out of the heart of every Pole; they will not rest until the very language is forgotten, and the nation abandons mead for *lager-bier*, and prefers *sauerkraut* to beetroot broth. In politics, as in science, they aim at thoroughness—at the absolute. But will they get it? To justify his measures, von Bülow said: 'If hares and rabbits are together in a park, and the rabbits multiply ten times faster, what is to be done?' The answer comes pat: 'Kill off the surplus of rabbits'; and it is the only one. Nothing but death can limit the increase of life; and he might as well try to turn rabbits into hares as change Poles into Germans by the means he proposed. It is a question of life and death, not to be solved by any means within the reach of civilisation.

In Austrian Poland, on account of favourable circumstances, amongst which the heterogeneous nature of the empire stands foremost, Poles are more free than anywhere else. They may, if they choose, wear the national costume, sing national songs, open Polish schools and theatres. For the latter, they are allowed to raise taxes. In general, Galicia possesses as much autonomy as does not clash with the interests of Austria, to which taxes have also to be paid. Here the shoe pinches. Autonomy is costly, and Galicia wretchedly poor. The land is not particularly good, and husbandry is backward; there is next to no industry, that of beetroot sugar excepted; as to the naphtha wells, numerous in some parts, they could not be made to pay, and nearly all now belong to foreign companies. Commerce is entirely in the hands of the Jews, who take care not to let it slip out of them. They form a community of about 700,000, as distinct from other Poles as Hebrew dwellers in the East-end are from the Londoners. Galicia, besides, is barely more than half

Polish; the Ruthenians make up pretty nearly half the population (2,822,000 to 3,084,000), and are indifferent, often hostile, to the Poles. There is even a party amongst them which complains of being oppressed. Never was a more absurd complaint. There are nearly as many Ruthenian as Polish schools, given by the Polish majority in the Diet freely and unasked. Now they demand a Ruthenian university, and are told that they shall have one as soon as Ruthenian professors can be found in sufficient number. It is hard to see where the oppression comes in; but still the party continues to make frantic attempts to stir up their people. Last year they organised a great strike amongst the peasants at harvest-time, but it failed.

Yet, in spite of all these drawbacks and weaknesses, Galicia, being free, is the province in which the Polish spirit is most fully developed. Less intense than in Russian Poland, less doggedly pertinacious than in Prussia, it has here more of maturity and intellectual power. The old Austrianised generation of Polish bureaucrats has passed away, and the new generation, with the exception of certain cosmopolitan magnates, is national to the backbone, and yet not unfriendly to Austria. Cracow, though relatively poor, is in many ways far ahead of Warsaw, with all its material resources; as to literary men, scientific writers and workers, painters and sculptors, it can readily show four where Warsaw can show one; and its ancient Jagellonian University, the oldest in all Poland, worthily seconded by the University of Lemberg, is still at the head of the movement of civilisation in the country.

We must not omit to note the political power wielded by Galicia in the Austrian Parliament. Loyalty to the Habsburg dynasty in exchange for friendly treatment has always been the maxim of the Polish party. It is even accused, perhaps with reason, of timidity and subservience; though recent events have proved that it can show a bold front to ministers who slight its demands. The condition of Parliament is indeed most pitiful; but the Polish party has ever done its best to bring about a better order of things. Almost alone amongst the various parties, its members have condemned obstruction in every form; and their action has been characterised

by a political maturity most remarkable in a nation whose Diets used to be the very emblems of misrule.

Having described the conditions which differentiate the three parts of divided Poland, we may now turn to their intrinsic divisions or political parties. They are few, if we remember the adage, 'Two Poles—three opinions'; but far too many for a nation so weak and surrounded with such enemies. Yet, though they quarrel amongst themselves, as parties must, it will not be hard to show that all tend towards one and the same ideal.

The Conservatives, strongly opposed (at least for the present) to all revolutionary action, maintain that the only thing to be done now is to concentrate every force upon quiet internal work for the good of the country. In Austria they are carrying out this programme in agreement with the Government, though their enemies say that for them 'the good of the country' means the exclusive interests of the upper classes. In Prussia and in Russian Poland some of them have formed a party which seeks the means to render a similar agreement possible. Hitherto they have been completely unsuccessful; and the tendency, though not unreasonable in itself, is certainly premature. Their principle, with regard to both countries, is to ask only for a minimum—absolute freedom of religion and language, and the abolition of such laws as place Poles in a state of inferiority; in return for which they would promise to support the Government loyally and with all their might. This, in the eyes of other parties, was treachery, a base surrender of all hopes of future independence. In reality, it was only putting independence into the background. They said: 'It will come of itself, if and when possible; let us study to deserve it.' But the explanation failed to render the party more popular, and at the same time gave the hostile Governments a pretext for regarding it with indifference. Neither Russians nor Germans care one straw for a loyalty which does not reject the very idea of independence; and no other, as they are well aware, could possibly be offered by a Pole.

The National Democrats bring forward the same demands as the Conservatives—the irreducible minimum; for, moderate as it is, they know that it constitutes an

ideal very hard to realise. But they do not attempt to hoodwink the enemy by any promise of loyalty. 'We shall be loyal,' they say, 'in so far as we may thereby serve the interests of Poland.' Nor do they relegate the hope of independence to the background; on the contrary, they look towards it as an ultimate end by which their courage may be sustained and their actions directed. Again, Conservatives object to all public demonstrations, secret manifestoes, national congresses, and the like, as useless and even hurtful; they remember how the two last insurrections followed from the excitement of popular passions, roused to frenzy by such means: another such rising would be the worst calamity that could befall the nation. This the National Democrats will not admit. An insurrection should, they think, be avoided most carefully, and everything done to keep the people in hand. But there might be a still worse calamity; the loss of the national character, the weakening of the feeling of unity which alone unites the divided provinces, and the extinction of that hope without which the struggle for well-being would become the mere selfish promotion of local interests. The Conservatives preach a gospel of fear, of want of confidence in the nation. Poles are not likely to repeat for the fourth time an experiment that has thrice failed disastrously; and the policy of stifling every protest against the outrageous system of oppression now in force is mere cowardice, apt to make Europe believe that Poland is dead, and even to kill the national spirit—if indeed it could die.

We must not, however, overlook an accusation which the Conservatives make against this party, though from want of space we can merely note that they deny it. The love for Poland which they advocate is, it is said, largely seasoned with hatred towards other nationalities. Anti-Germans, anti-Muscovites, anti-Panslavists, they also keep aloof from all the Slavs, which is surely going too far. In the recent disturbances amongst the Russian population, they affected complete indifference, not displeased of course that the Government and the people should be at odds. Their committee advised the Warsaw students to avoid showing any sympathy towards those who rebelled in the Russian universities; good advice, had it not been given for this motive. And lastly,

Professor Zdziechowski, a Polish patriot who does not think himself bound to hate Russians who are friendly to Poland, and has strong sympathies for other Slav races, was last year, for this reason, prevented from lecturing in Lemberg and Cracow by excited students who, most unjustly, held him for a Panslavist and a 'Moskalophil.'

Few of the other parties need lengthy notice, being mostly counterparts of those which bear the same name in other lands. There are the Catholics, for whom religion comes even before patriotism, and is not only a means of preserving the unity of the nation; the Progressists or Liberals, who feel hatred rather for the upper classes of their own nation than for others; and the Socialists, who fraternise with the Progressists, talk of a Polish Republic in which socialistic principles are to be realised, and boast to their adherents, mostly workmen, that they are the only true patriots. But there is one party that we must review at greater length, not so much on account of its influence as for the marked contrast in which it stands to the others, and to our practical, if not materialistic, age.

The party of the Philarettes was founded and is led by the gifted though eccentric Dr Lutoslawski, known in the philosophical world by his numerous works, written in many languages, including English, as a Platonist of a special type. The essential character of Polish society is, according to him, free union and harmonious co-operation through mutual love. With hatred he would have nothing to do; he would conquer both Germans and Russians by winning their love towards the Poles, their superiors in virtue. His Philarettes form, though not in the usual sense, a secret society, a sort of Polish religion within the Catholic pale. Men and women, calling themselves 'Brothers and Sisters,' after a public confession of all their lives, must swear to give up gambling, drinking, smoking, and all immorality. It is only thus, he says, that Poland can be regenerated; but the virtues which he teaches will make her so great that her foes of the present hour will fall at her feet; without striking a blow she will regain the independence due to a people of saints. Much in his teaching smacks of the Messianic doctrine of Towianski, who exerted so great an influence

over Mickiewicz in his later years. Lutoslawski's adherents are mostly young students of an extraordinary turn of mind, as may well be supposed. As to their number, it cannot be computed, on account of the reticence observed; but there are certainly many more than those who openly profess that they belong to the party. Many branches of it are supposed to exist both in Russian and in Prussian Poland. He affirms—the present writer has heard him—that he gets his thoughts and inspirations directly from God. His followers, as a consequence, believe in him blindly; as a consequence, too, other persons think him a heretic or a madman. But he, too, strange as are the means which he advocates, has for his aim and end the independence of Poland. On that point all parties are agreed.

With this exception, and another, of great moment—namely, that no one at present looks forward to a speedy return of lost freedom—these parties are at daggers drawn, and treat each other with much violence of language. But one great cause of their mutual exasperation is the difficulty, the seeming impossibility of getting a satisfactory answer to many problems which, in one way or another, have to be solved if the present state of things is to come to an end. For example, the struggle against Germany and Russia combined appears hopeless on the face of it. On the other hand, any inclination of the whole Polish people towards one or the other of those two powers, slight though it might be, would create reciprocal feelings of friendship which might go far to alleviate present sufferings, and in the end perhaps bring about unity as a prelude to freedom. Yet such a course, however advantageous it may seem, is absolutely excluded. The sense of wrong suffered by the people is so deep that any attempt or fancied attempt towards such a *rap-prochement* is resented at once; they cannot bear the idea of it. We have already noticed the fate of the Agreement party (*Ugodisci*), both in Prussia and in Russia. But still less reasonable occurrences are frequent. At the time of the Wreschen trials most of the Russian newspapers condemned Prussian policy in strong terms. By way of acknowledgment, the National Democrats of Warsaw published a manifesto rejecting their sympathy with the utmost scorn. In Prussia, Rakowski ventured

to assert that the future of Poland now lay beyond the eastern frontier; his utterance was instantly silenced by a storm of abuse. A Moscow society had sent some rubles to Jaworski, leader of the Polish party in the Vienna Parliament, desiring him to forward them to the victims of Wreschen; almost on all sides he was assailed for not returning the money. And this hatred of Russia (and certainly of Germany no less) deepens as the national spirit grows stronger. There is no dream of making even a temporary alliance with either against the other; men may be diplomatic; nations cannot. Therefore, judging from the past, men of foresight already begin to predict a cataclysm worse in its results to Poland than any of those which preceded it. This, however, the Conservative party, and all those who have anything to lose, will certainly avert if possible. Only those who have nothing are prepared to risk it.

The Polish question, then, even to men who know all that can be known, seems to be an insoluble problem. For the nation, aware of its great past, and of its present not quite bereft of a certain greatness, refuses either to die or to be assimilated, and will not in 1903, any more than in 1772, give up its claim to what is just—to full and entire liberty. But those who enthralled her, on the other hand, dare neither destroy her nor set her free; and day by day they see assimilation farther off than in the days of Kosciuszko. Only two final solutions can be found to this problem—impossible solutions both. One is to be found in the words of Zamoyski, who, when the Governor of Warsaw, shortly before the rising of 1863, asked him what was to be done, curtly replied, 'Allez-vous-en.' The other would be to dig twenty millions of graves, shoot twenty millions of Poles, bury them, and have done with it. As matters stand, the question is still unsolved; and a population almost half as large as that of the United Kingdom lives and must live on in perpetual unrest and fermentation, not less disquieting than disquieted, ever growing in down-trodden strength. And all this is but the result of that first great act of injustice which was committed towards the close of the eighteenth century.

Art. V.—THE INFLUENCE OF KANT ON MODERN THOUGHT.

1. *Kants Gesammelte Schriften*. Herausgegeben von der Königlich-Preussischen Akademie der Wissenschaften. Berlin: Reuther und Reichard, 1902.
2. *Kant-Studien*: Philosophische Zeitschrift. Bände I-XI. Herausgegeben von Dr Hans Vaihinger. Berlin: Reuther und Reichard, 1896-1904.

IN the history of human thought it is difficult, perhaps impossible, to say exactly when any new idea or tendency begins to operate. But if any modern writer has a claim to the German epithet 'epoch-making,' it is the philosopher, Immanuel Kant, the centenary of whose death fell on February 12, 1904. He it was who gave to the great questions of philosophy the form which they still retain; and he also indicated the principal lines of investigation in which the answers to these questions are still sought. On the other hand, if we go back beyond Kant, we find that the whole intellectual atmosphere has changed. The philosophical problem is stated in a different way; the solutions attempted are of another character. The philosophical situation of that time is well described by Kant himself. Two forms of dogmatism, an abstract materialism and an abstract spiritualism, contended with each other, and both were undermined by an equally abstract scepticism, which, if carried out consistently, would have been fatal to science as well as to metaphysics. The narrowness of these theories was mainly due to the individualistic presuppositions which were common to them all. The unreality of the Universal, except as the sum of the particulars, or at best as a common quality in them, was the tacit assumption of all philosophical writers. The thought of any unity in society which was more than an agreement between its members, or of any unity in the universe which was more than the action and reaction of its parts, was generally repudiated as mysticism or enthusiasm. Even Leibniz, who sought to find the universal in the individual, the principle of the whole in all the monads which were its parts, was driven to express this idea in the unsatisfactory form of a pre-established harmony; in other words, to treat the difference of individual things as real, and their

unity as only ideal ; for each of the monads was conceived by him as *representing* all the others, from which, nevertheless, it was in *existence* entirely separated.

The result of this way of thinking was seen in the next generation. From the individualistic principles of Locke, Berkeley drew the conclusion that we know nothing directly except the states of our own consciousness ; and Hume, following out the same logic, maintained that beyond these passing states we know nothing either of the self, the world, or God, though the action of association may give rise to beliefs which have the appearance of such knowledge. Thus mind was dissolved into the atomism of sensations, without any rational principle to organise them into the consciousness of an intelligible world. And if, in Germany, this conclusion was evaded by Wolff, who still maintained the spiritualism of Leibniz while emptying it of most of its speculative elements, yet the result was a worse than scholastic dogmatism, a philosophy of foregone conclusions, which proved nothing and explained nothing. For Wolff based the possibility of knowledge of the soul, the world, and God upon certain *a priori* principles which were independent of all experience, and could therefore neither be confirmed nor refuted by it. Indeed the very fact that the *a priori* or universal element of thought was absolutely separated from the particulars of sense tended to deprive both of all significance ; for, as Kant was soon to declare, 'perceptions without conceptions are blind, and conceptions without perceptions are empty.' In other words, unconnected particulars have no meaning, and universals which are not principles of connexion have no content. Thus, on the one side, we have the 'dust and powder of individuality' and, on the other side, abstractions which have no relation to reality.

Now the 'epoch-making' significance of Kant's work lay in this, that, though his mind was deeply affected by dualism, and could never entirely escape from it, he yet revolted against it and endeavoured to bring the two terms together in a fruitful union. His philosophy, therefore, had a twofold direction, negative and positive. He had to show the futility of the dogmatism of Wolff, and yet to defend against Hume the validity of the universal principles that underlie all our knowledge or belief. And

he had to do both by showing that the elements, which lose all their meaning when separated, form, when united, a body of experience which is at once intelligible and, in a higher or lower sense, real. It is, indeed, just this reconstruction of an intelligible consciousness of the world as a whole, and this negation of imperfect theories which omit the one or the other element in it, which Kant expresses by the word 'criticism.' And his different 'Critiques' are only different stages in his long struggle to attain this object, to vindicate the universal as the principle of unity in our theoretical, practical, æsthetic, and religious consciousness, while acknowledging its impotence or imperfect validity when viewed as a mere abstraction and severed from its particular applications. Throughout he is attempting to distinguish between the elements in each of these forms which can be trusted and those which must be regarded as untrustworthy. And the result of his whole process of thought was, in the first place, to dismiss scepticism as irrational so far as it is directed against the empirical science and its methods. In the second place, it was to put out of court the dogmatic materialism and the dogmatic spiritualism of pre-Kantian philosophy, and that so decisively that neither has been advocated by any competent writer since Kant's day. Lastly, it was to concentrate the labours of speculative writers upon the ultimate problem of the possibility of the knowledge of that which transcends our immediate experience and cannot be verified by the ordinary methods of science; in other words, upon the nature and limits of our consciousness of the real, as distinguished from the phenomenal.

Now, starting from the work of Kant, there are three living movements of thought which correspond roughly with the three 'Critiques.' There is, first of all, what is called agnosticism, which differs from scepticism in that it maintains the validity of empirical science, while denying the possibility of any knowledge that goes beyond sensible experience. This attitude of thought may be regarded as the direct result of the 'Critique of Pure Reason,' both in its positive and in its negative aspect, in its defence of mathematical and physical science against Hume, and in its polemic against the metaphysic of Wolff. In the second place, there is a

school of philosophers, perhaps the most popular school at the present time, which admits that absolute truth—truth as to all reality which is not phenomenal—is inaccessible to science, but which maintains that the *idea* of such reality is necessary to the human mind, and that it finds its verification in the moral consciousness; since the moral consciousness compels us to postulate God, freedom, and immortality as the fundamental presuppositions of our practical life. This view can obviously be shown to be derived from Kant, and particularly from the 'Critique of Practical Reason.' Lastly, there are many writers who maintain that the problem of philosophy can only be solved by a thorough-going idealism, which breaks down the Kantian division between thought and knowledge, between faith and reason, or reduces it to a division, not of kinds, but of stages of knowledge. Such writers hold that the absolute reality reveals itself in our actual experience, at least for one who carries that experience back to its ultimate principles; and that the conceptions which Kant regards as transcendent ideas, or practical postulates, may be brought within the sphere of knowledge. It is obvious that any one who holds this view goes beyond the strict limits of the Kantian philosophy. But he may maintain that he does so only by going a step farther in the direction of those modifications of Kant's own theory which are admitted into the last of his 'Critiques,' the 'Critique of Judgment.' Perhaps, therefore, the simplest and most illuminating way in which we can treat of the influence of Kant will be to show how he has contributed to each of these movements, and to attempt to answer the following questions. How, and how far, does Kant supply a rational basis for agnosticism? How, and how far, does he succeed in proving that the practical reason restores our faith in the reality of those objects which he holds to be beyond knowledge? And, lastly, how, and how far, does he prepare the way for the doctrine that the division between faith and knowledge is a relative one, and that ultimately the rational or intelligible is also the real—a doctrine which was ostensibly developed out of Kant's philosophy by his idealistic successors.

First, then, agnosticism—as the doctrine that we can

know phenomena and their laws, but that things in themselves are unknowable—finds its beginning and its best defence in the 'Critique of Pure Reason.' Absolute reality is, in Kant's language, noumenal; that is, it is an object of thought but not of knowledge; for, while the idea of such reality inevitably suggests itself to the human mind, it does not conform to the conditions under which alone objects can be known. For what is knowledge? It is another name for experience; and experience is limited to objects which can be presented to us in sense. In other words, knowledge is the product of an activity of the human understanding, which, by the aid of certain *a priori* principles, i.e. principles involved in its own nature, binds together the data of sense, and moulds them into an intelligible system. Thus, in spite of the fragmentary and unconnected way in which these data come to us, we always in our effort after knowledge go upon the idea that the world is one world, and that all objects in it are in necessary relations with each other. All objects of sense, indeed, are presented under conditions of space and time; and the externality of space and the evanescence of time seem hostile to any definite and necessary connexion. But the mind cannot rest without bringing all its experiences into thorough-going continuity and combination with each other. Even space and time themselves can be represented only as continuous quantities; and the same principle must be applied to everything which is conceived as existing in space and time. Nor can we stop here, or adopt the idea of Hume that phenomena are given to us in mere relations of co-existence and succession, without any further necessity of connexion between them. For whenever we consider how co-existence and succession in the phases of objects can be *known* to us, we realise that these relations rest on and imply still deeper links of connexion between them. If a world of objects existing in space and changing in time is to be known by us, the objects that constitute it must be conceived as permanent substances which, in all their action and reaction upon each other, are determined by universal and unchangeable laws. Hence nature is for us a system all the parts of which are bound to each other by causal necessity. And if we did not presuppose this, if for us there were no necessity

of connexion between objects, if they came into existence and went out of existence in an accidental manner, or changed their qualities without being acted on by each other in definite ways, we could make nothing of them; and all definite consciousness even of their co-existence or succession would disappear. In short, if there were no organised experience there could be no experience at all.

So far, the result of Kant's criticism seems only to carry us beyond the dogmatic individualism of previous philosophy, as well as beyond the scepticism which was its consequence, by exhibiting experience as the product of two factors—a universal element derived from the understanding, and a particular element derived from sense. Sometimes, indeed, the argument by which Kant proves the necessity of both these elements of experience seems to carry us beyond this point, and to involve that they are not really two independent factors but rather two organically connected aspects of knowledge. It suggests that the abstract universal and the abstract particular are nothing more than fictions of abstraction, and that the truth can only be found in their unity. But Kant adheres to the idea of the essential difference of these two factors, and, at the same time, to the idea of the necessity of their combination in the production of experience. It is, indeed, his firm conviction of the essential difference between the two elements of experience, between the given data and the thought that unifies them, that makes him regard its objects as merely phenomenal. The synthetic unity of experience, just because of the disparate nature of its matter and its form, is an incomplete knowledge; and it shows its incompleteness by the fact that the attempt to deal with it as a *res completa*, a self-subsistent and self-contained whole, leads to antinomies, i.e. it raises questions that cannot be answered either affirmatively or negatively. Thus we cannot conceive time and space, or the world conditioned by them, either as limited or as unlimited, either as having or as not having a beginning. In like manner we cannot conceive of the series of effects and causes as without beginning; nor can we conceive it as beginning with a cause which is not an effect. Yet our reason demands

for its satisfaction the complete determination of its object, and refuses to admit the absolute reality of anything which it is unable to regard either as a systematic whole or as a part of such a whole.

It will now be clear what is the ultimate ground of the distinction between phenomena and noumena. Our reason carries with it, and may even be said to be constituted by, the idea of a whole, all whose parts are organically related; and it necessarily condemns as phenomenal every object or world of objects which does not satisfy that idea. Or, what is another aspect of the same thing, it carries with it the idea of a 'perceptive understanding,' in which form and matter are one; and it necessarily contrasts with this idea the piecework of our intelligence, which can only combine a form due to itself with a matter given through sense. Yet this very idea, which cannot be verified in experience, is in another way necessary to experience; for it is just the impossibility of resting in the imperfect result of our empirical knowledge that continually urges us forward to extend that knowledge into new regions, and, by the aid of the categories, to bind together the new materials which sense is ever bringing to us; though, after all, we know that we can never reach a complete system by the aid of such categories. We are thus placed by our mental constitution between a phenomenal world which we know and ideas of reason which we can never verify; and we can repel at once the scepticism which would deny the validity of empirical science, and the dogmatism which would attempt to widen the sphere of knowledge beyond experience.

Kant, then, by the first of his 'Critiques,' may be said to be the founder of the Agnostic school; and he is so much in earnest with the negative part of this work that he devotes more than half of the 'Critique' to a demonstration of the futility of the rational psychology, cosmology, and theology of the Wolffians. And, in refuting them, he seems to himself to have disposed of all philosophical systems which pretend to the knowledge of the soul or of the world or of God. At the same time, he escapes the fatal inconsistency of many agnostic writers, who think they have a right to deny the possibility of knowing supersensible objects or 'things in themselves,' without explaining how we come to think of such objects at all.

Yet, unless this is explained, agnosticism contradicts its own presuppositions, and finds its final refutation in the joke of Heine, who says that 'the thing in itself is an Irish bull in philosophy'; in other words, it is a thing of which we know only that we do not know it. Kant commits no such paralogism; for it is his distinctive doctrine that it is not only possible but necessary for us to *think* of noumena, which yet, as he contends, it is impossible for us to know. Indeed, he endeavours to show that, as the faculty of the universal, reason necessarily brings with it the three great ideas of the simplicity of the soul through all the diversity of its experiences, of the completed system of the objective world, and of the absolute unity of God, of whom the consciousness of the subject and the consciousness of the object are but partial expressions. It thus awakens in our minds all the questions of philosophy, though it has no means of solving any one of them. All the problems which philosophers have been grappling with in all ages are thus accounted for, and at the same time Kant thinks he has shown that they must ever remain problems, so far at least as the theoretical reason is concerned. The ideas of reason are only regulative ideas, the necessary guides and *stimuli* of the mind in its effort after knowledge; but, while we can and must apprehend or think them, we can never hope to comprehend their objects.

Kant, then, does not cut away the ground of his own agnosticism; but, just because he thus admits the thought of the supersensible, he is compelled to take a second step, and to substitute for the doctrinal metaphysic he has rejected a metaphysic of ethics. And this metaphysic enables him, as he believes, to reach an assurance of faith as to those very ideal objects which are supposed to be beyond knowledge. This will be seen at once if we consider the connexion of the 'Critique of Pure Reason' with the 'Critique of Practical Reason.' In the former, the ego to which all experience is referred is distinguished from the empirical individual in which it is realised; in other words, the ego as subject is contrasted with the ego as object. As knowing, we are lifted not only above our own particular finite existence, but also above the finite existence of all the other objects which we know. We are, as Plato put it, 'spectators of all time and existence.'

The knowing subject cannot be treated as an object, or brought under any of the categories by which objects as such are determined. It is not subjected to the necessity of nature; and it is, indeed, its pure unity and universality, in contrast with the difference and limitation of all its objects, that gives rise to those ideas of the soul, the world, and God which transcend all experience. The consciousness of it lifts us above the conditions which close in our existence in the world of sense. But this consciousness so far remains merely ideal, a thought that cannot be verified; it imposes a problem upon us, but it cannot help us to a solution. What, however, is impossible for knowledge, 'in that it is weak' through its dependence upon sense, becomes possible for the moral consciousness, which is not so dependent. What for theoretical reason is a necessary ideal, but still only an ideal, is for practical reason the one great actuality of our existence, the one law to which as rational beings we are subjected. In practice we have to look upon ourselves as denizens of the intelligible, and not of the phenomenal world; or, as Kant puts it, we 'are compelled to think of ourselves as denizens of the intelligible world in order to regard ourselves as practical.' And the same compulsion forces us to regard the intelligible world as the fundamental ground or reality of the world of sense. For we cannot think of our obedience to the moral law as subject to any conditions whatever. The unity and universality which belong to the ego, in its character as a subject for which all objects exist, lay an absolute obligation upon us in our particular nature as objects. And, limited on every side, as we seem to be when we regard ourselves in the latter capacity, in the former capacity we have to consider ourselves as absolutely free, or conditioned by nothing but the law of our own being.

What, then, is this law? It is simply the command to be one with ourselves as universal subjects in all our actions. It is the obligation to conform always to the idea of law; in other words, it is the obligation always to act upon rules which we can universalise, which we can regard as applicable to ourselves and to all other rational beings in all circumstances. For disobedience to such rules there can be no excuse; it is quite irrelevant to allege difficulties arising from our phenomenal

nature, as against an imperative command that comes to us out of our inmost being as self-conscious subjects. We *can* act, because we *ought* to act, as beings dwelling in the intelligible world, though all the powers of the sensible world should seem to be leagued against us.

Now, if the moral consciousness thus translates us into the intelligible world, it gives us the right to postulate the reality of that world. As against the necessity of nature, the unconditioned law of duty gives us the assurance of our freedom. In face of the transitoriness of our earthly life, it inspires us with the faith that we shall live for ever to realise our own perfection. And, in view of the apparent indifference of nature to the weal of mankind, it bids us postulate the existence of a God, who subjects the causal sequence of phenomena to the absolute law of justice, and binds together evil with misery, and good with happiness.

The important point about this theory is obviously the way in which it restores to thought and faith what it denies to knowledge, and endeavours practically to transcend that opposition between nature and spirit which theoretically it regards and treats as absolute. In this respect it is the prototype of many later theories which attempt to base upon the moral consciousness, or upon feelings and desires that are connected therewith, beliefs which are beyond the possibility of verification according to the only methods recognised by science. Thus the will is supposed to open to us an escape from the limits of scientific theory; and it is maintained that, in the case of the main principles of morality and religion, we are entitled to found belief upon the will to believe.

There are many objections which might be brought against this form of dualism; and what are perhaps the most serious arise out of the inconsistencies into which Kant falls in attempting to carry it out. In the 'Critique of Pure Reason' Kant is constantly insisting upon the necessity of the co-operation of sense and thought in the production of knowledge, and arguing that, if we attempt to sunder them, thought shrinks into an abstract unity, and perception into an abstract 'manifold,' neither of which has any real significance. The latter is blind, i.e. in the unrelatedness of its elements; it cannot set before us any definite object. The former is empty, i.e. it is a

mere form of analysis which defines nothing. In all this Kant seems to be proving that the factors to which experience is referred are mere abstractions, which become intelligible only when viewed in their unity. But he never seems to realise what he has done; and, as I have already said, the two elements remain for him independent constituents, which never lose their identity in the whole to which they contribute. Nay, he seems to think that in their combination they are warped and transmuted from that which they are in themselves. In particular, he seems to suppose that thought, in its pure analytic nature, has a higher meaning than in its synthetic use. And in spite of his assertion that it is in itself merely analytic, he conceives in the end that it points to a higher kind of unity than that which it can attain in its application to experience. In other words, he regards it not as abstracting from all difference, but as giving us the idea of a more perfect and transparent unity of differences than can be realised in the synthesis of the matter of sense. Thus the analytic or tautological unity of thought with itself gets changed into the idea of an organic unity, which, as he supposes, cannot be attained under the conditions of space and time. Even so, thought is still conceived as remaining thought and as incapable of becoming a principle of knowledge; but it is no longer empty. It is self-consciousness, which involves the difference of subject and object, but at the same time transcends it. It suggests, as we have seen, the idea of a perceptive understanding, an understanding which overreaches the difference between itself and sense. And this, though only a regulative idea, is conceived as so far positive that it can stimulate and guide the process of knowledge.

Again, in Kant's account of the 'Practical Reason' the same tacit and apparently unconscious transition from the abstract to the concrete, from a merely analytic to a synthetic unity, takes place. For while, in the first instance, he resolves the moral law into the mere idea of law or formal self-consistency, an idea which is empty, and cannot by all Kant's efforts be made to supply a plausible basis for the particular rules of morality, he immediately proceeds to identify this formal principle with the conception that every self-conscious being is an

end in himself, who is never to be treated merely as a means to any one else; nay, he even identifies it with the idea of a kingdom of such ends, i.e. of a society in which every member finds the realisation of himself in and through his unity with all the other members. Here at least the analytic conception of the law of reason has obviously passed into the idea of social organism, in which all self-conscious beings are particular organs. Kant, indeed, never definitely admits this; but it is only because the idea of a self-consistent whole tends to substitute itself for the conception of mere logical consistency or absence of contradiction, that the moral principle of Kant has any real meaning. If, however, we do make this change, the absolute opposition between thought and knowledge, between noumena and phenomena must disappear. It must give way to the merely relative opposition between a scientific method which is limited to a mechanical view of things and a philosophy which, by a further reflection, brings them under the higher categories of organism and development. It seems, therefore, as if the Kantian view of the ideas of reason could not ultimately be maintained without a complete rejection of the dualism in which he begins. For the positive conception of these ideas, as principles of unity in difference, does away with the main difficulty of applying them to experience; and, while it is vain to attempt to determine moral conduct by reference to a merely analytic principle, the idea of a social organism seems at least to supply a point of view from which our actual ethical life may be understood and explained.

Now, although Kant never made this change, or withdrew his doctrine as to the essential distinction of sense and thought, and therefore of knowledge and faith, yet the impulse to unify the different elements of his philosophy was always consciously or unconsciously influencing him. Hence in the last of his 'Critiques,' the 'Critique of Judgment,' he makes a great advance in this direction. The first part of that 'Critique' is devoted to the analysis of the consciousness of the beautiful and the sublime, and in it he maintains that the opposition of sense and thought can be transcended, if not in knowledge, yet in feeling. For we are conscious not only of feelings of sensuous

pleasure and pain, and of moral feelings of reverence awakened by the law of reason within us, but also of æsthetic feelings. The sense of beauty arises in the consciousness of an object in which the data of sense are not known, but felt, to be in harmony with the demands of the intelligence. Here, therefore, we have a feeling which seems to anticipate and symbolise that perceptive understanding which Kant elsewhere regards as a mere ideal of reason. Beauty is for us the realisation in the empirical world of an idea which cannot be verified in knowledge. It is, as it were, the 'far-off divine event' brought near to us in sensible perception. And this is above all the case when, in the form and visible presence of some typical human being, or in the representation of such a being in art, the beautiful becomes associated with the good. The sense of the sublime carries us a step farther, for it enables us to feel a purposiveness even in the failure of sensible things to realise the ideas of reason. For the feeling of sublimity is called forth in us just when sensible greatness, carried to the highest point of magnitude or force, suggests a higher greatness which the world of sense cannot contain or express. Thus the starry heaven above, in the illimitable expansion and in the immeasurable magnitude of the forces which its movements reveal, seems at first to appal us and then by a reaction to awake a consciousness of the majesty of unconditioned moral law within us, before which all the greatness of the physical world sinks to nothing. We can see, therefore, that the feelings of the beautiful and the sublime carry us beyond that division of sense and thought which besets our ordinary as well as our scientific consciousness of the world.

But Kant is not content with this reconciliation in feeling. He goes on in the second part of this 'Critique' to speak of a kind of reconciliation of sense and thought in knowledge. The ideal of organic purpose is not, he points out, merely a subjective ideal; it has, in a way, an objective use. For, in the first place, in attempting to understand the nature of living beings, we are forced to take refuge in that idea; in other words, we are quite unable to reach any adequate explanation of the existence of an animal, or even a plant, by means of mechanical principles. We cannot account for the life of such 'an

organised and self-organising being' as the resultant of the action and reaction of the different parts of its body, but are obliged in this case to look upon the unity of the whole as prior to the difference of the parts, and to regard the parts as organs through which that unity expresses itself. The living being is analogous to a work of art, with the difference that it has its producing cause, not in the conscious purpose of some being without it, but in a principle that works without consciousness within it. Though, however, we are thus obliged to use the principle of immanent design as the only explanation which we can give of the phenomena of life, we are not, in Kant's view, entitled to treat that explanation as, in a strict sense, objectively valid. It is only a necessary expedient, forced upon us by the fact that it is impossible to explain the organic by the ordinary mechanical principles of science; and that, failing these, we have nothing to fall back upon but the imperfect analogy of our own methods of action. The idea of immanent design is, therefore, not a substitute for the mechanical explanation—which we must apply to the phenomena of life as to all other phenomena; it is simply a hypothesis which can never be empirically verified, but to which we are forced to resort when the mechanical explanation fails us, as it must fail in the case of the phenomena of life.

Are we, however, to stop here? Are we to apply the idea of an immanent purpose only to the phenomena of the life of organic beings, or can we give it a wider application? At first, it would seem that any attempt to widen the sphere of that idea were illegitimate; but Kant maintains that the use of it in the case of organic beings necessarily suggests and even compels a further application of it to the world as a whole, and especially to the whole sphere of human life. Nor, in his opinion, can we avoid asking ourselves the further question, whether there is any evidence that the course of the world is regulated with a view to the good of man, or whether in any sense his being and well-being can be regarded as its final end.

Now, looking at man as a natural being, we cannot see any indication that it is so; for if at times in the course of the world other things and beings become instrumental to man, he in turn is made instrumental to them. The world-process is one in which every existence

seems alternately to become means and end to all the others; in the words of Pope,

'All served, all serving; nothing stands alone;
The chain holds on, and where it ends, unknown.'

But when we look at man as a moral being, who lives under the absolute law of duty, we are obliged to assume that in a sense everything exists for his sake. For if 'a good will is the one thing which we can regard as unconditionally good,' we cannot admit that anything should stand in the way of its realisation. This was already laid down as a postulate in the 'Critique of Practical Reason'; but in his later works Kant carries it out in a way that is very difficult to reconcile with the individualistic conceptions of morality which prevail in that 'Critique'; for there each rational subject was regarded as a law and an end to himself, who, in his inner self-determination, could neither be aided nor hindered by any one else; and all the natural passions of the individual were represented as extraneous impulses, belonging only to his existence as a particular object in the phenomenal world. But in the 'Critique of Judgment,' in the 'Essay on the Idea of Universal History,' and the 'Treatise on Religion within the bounds of mere Reason,' we find a new conception prevailing, both of the relations of men to each other and of the relation of the natural passions to the higher life of humanity. For, on the one hand, Kant seeks to apply the idea of organism to human society, and particularly to the Church, which he regards as a *Tugend-Bund*, the members of which are pledged to give the utmost aid to each other in their endeavours after intellectual and moral excellence; and, on the other hand, he advocates a view of human history the fundamental principle of which is that man, by the very working of those natural passions which seem most adverse to goodness, by the selfish struggle for existence and for outward success and honour, has been, and is being, forced to develop his intellectual and moral powers, and to create a form of society in which these powers may find a perfect sphere of exercise. This, however, seems to imply that the natural passions are not irrational impulses, but the partial manifestations of the same principle which ultimately expresses itself in the moral consciousness. It

seems to imply that reason is at work even in the desires that appear to be most antagonistic to it.

Now Kant is hardly prepared to admit such conceptions as these as objectively valid, in the full sense of the word; but he is ready to connect his idea of history with the belief in a divine providence that 'shapes our ends, rough-hew them how we will,' and which makes the whole process of the universe subservient to the intellectual and moral progress of man. In this sense he tries to prove that the Christian religion, when its mythic and purely ceremonial elements are removed, is in essence identical with the ethical monotheism which he himself had postulated in the 'Critique of Practical Reason.' And, in maintaining this thesis, Kant tacitly introduces many considerable modifications in the individualistic character of his original ethical system, both as regards the social relations of men to each other, and as regards the relation of human freedom to divine grace. He thus not obscurely points to a view of the kingdom of spirits, not as a collection of independent self-determining individuals, but as a real organic community, in whose development the divine life is manifested. In fact, if we leave out the reserves and cautions by which Kant always protects himself from direct contradiction with his earlier individualistic statements, we might easily find, in the three 'Critiques' mentioned above, an anticipation of almost all the main features of later idealism. It is, indeed, only an anticipation; nor can we identify the system of Kant, even at the most advanced point of his speculations, with that which was subsequently developed out of it. We cannot directly pass from his philosophy to that of Hegel, except through the long movement by which Fichte and Schelling gradually modified the narrow subjective view upon which Kant stood to the last, and which he never consciously renounced. Still, looking backward, we can see that the Kantian philosophy contains not only the possibility, but even the necessity of such a development, and that, in this point of view, he is the father of modern idealism and spiritualism.

We have now considered the main aspects of the work of Kant in its relation to the history of speculation, and we have attempted to show that three great tendencies of modern thought find their starting-point and

many of the weapons of their warfare in his philosophy. He may be regarded as the bridge between two epochs in the ideal life of the modern world. He was deeply influenced by the individualism of the eighteenth century, and was never able altogether to free himself from its spirit; yet his main work was by patient and life-long effort to show the inadequacy of all its philosophical endeavours, of its dogmatism as well as of its scepticism, and at the same time to point the way to the possible solution of the new problems which have been discussed in the nineteenth, and are still being discussed in the twentieth century. He did not formulate a self-consistent system which any one could now accept; his whole philosophy may rather be regarded as a pathway of transition between two disparate views of the world and of man's place in it. But by the combination of negative and positive achievement, by the thoroughness of his discussion and refutation of earlier and more abstract modes of thought, and by the originality and insight which enabled him to open up new and fertile lines of investigation, he thoroughly vindicated his claim to be named the great Critical Philosopher.

The new edition of Kant's works referred to above, which is now in course of publication, will do much to remove the main difficulties in the interpretation of his philosophy. The old editions of Rosenkranz and Hartenstein have become unsatisfactory by the discovery of many textual errors; and, since their publication, a great deal of additional matter, in particular many manuscript notes by Kant himself, and letters to and from him, have been given to the public. In these circumstances the Berlin Academy of Sciences has appointed a Commission to prepare a new edition, comprehending everything which can be recovered of Kant's writing or teaching. The work, when completed, will probably be one of the most satisfactory editions of a philosopher hitherto published. The 'Kant-Studien,' edited by Professor Vaihinger, which is also referred to above, has during the last ten years done much to illustrate Kant's work and to prepare the way for this new edition.

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Art. VI.—THOMAS TRAHERNE AND THE RELIGIOUS
POETRY OF THE SEVENTEENTH CENTURY.

1. *The Poetical Works of Thomas Traherne, B.D.* Now first published from the original MSS. Edited by Bertram Dobell. London: Dobell, 1903.
2. *The Poetical Works of George Herbert.* Edited by A. B. Grosart. London: Bell, 1876.
3. *The Temple.* By George Herbert. Facsimile reprint of the first edition of 1633. Sixth edition, with Introductory Essay by J. H. Shorthouse. London: Fisher Unwin, 1903.
4. *The Temple.* By George Herbert. Reprint of the first edition. ('Chiswick Quartos.') London: Bell and Sons, 1904.
5. *The Works of Henry Vaughan, Silurist.* Edited by the Rev. A. B. Grosart. Four vols. Privately printed. London, 1871.
6. *The Poems of Henry Vaughan, Silurist.* Edited by E. K. Chambers. With an Introduction by H. C. Beeching. Two vols. London: Lawrence and Bullen, 1896.
7. *Silex Scintillans, or Sacred Poems and Private Ejaculations.* By Henry Vaughan. ('Temple Classics.') London: Dent, 1900.

'News from a foreign country!'—the opening words of one of his own poems—might well serve as a subsidiary title to the volume which acquaints us, for the first time, with the poetical works of Thomas Traherne. Unknown, apparently, as a poet to his contemporaries, it has been the strange fortune of this devout singer of the seventeenth century to wait until the twentieth for his advancement to the House of Fame. It is but a humble niche, perhaps, that he can claim to occupy; but his right of entry is clear enough to render his identification by Mr Dobell one of the most notable literary discoveries of recent years. Mr Dobell has rescued from oblivion a poet who was either too modest or too careless to court publicity, and seems to have been too shy even to share his poetical secret with his closest friends. As a divine, Traherne had in his day some small repute. Had he

been known as a versifier, however indifferent, to any brother of his craft, we should have heard of it. The minor poets of those days were never chary of exchanging complimentary numbers; and, had he had a friend among them, Thomas Traherne would not have died unsung. It has been left to Mr Dobell himself to supply the only commendatory verses which attend the poet's first appearance in print, and, as he quaintly tells us, to match his author's

‘noble and exalted thought
With the best raiment that our time affords
Of comely type, fine paper, seemly boards.’

And so, in the panoply all at once of hand-made paper and vellum binding, Thomas Traherne takes his station among the English poets. We are not, indeed, prepared to rate him at his discoverer's sanguine valuation. Mr Dobell is positive that ‘neither Herbert, Crashaw, nor Vaughan can compare with Traherne in the most essential qualities of the poet.’ Far from being the superior, he is not, in our opinion, the equal of any one of the three, tried by any test of poetical quality. He is, however, good enough to be admitted to their company; and with Herbert and Vaughan in particular, he has sufficiently close affinities, both literary and racial, to warrant our treating the three together as a separate group among the poets of their time.

Traherne has so much in common with Henry Vaughan, at all events, that the newly discovered poems were first ascribed, by no mean authority, to the Silurist, and narrowly escaped publication under his name. The manuscript, casually picked up on a London bookstall, passed into the hands of the late Dr Grosart, whose services to literature as a prolific editor of English poetry should save him from much of the facile disparagement provoked by his eccentricities as a critic. Among Dr Grosart's last, and unfulfilled, projects was a reissue of the complete works in prose and verse of Henry Vaughan; and his main inducement to undertake the task was the acquisition of the manuscript since identified as Traherne's. So many of Traherne's poems start from and return to one of Vaughan's characteristic thoughts that they might well have deceived acuter and less headlong judges than

Dr Grosart. It is of the author of 'The Retreat' that one is inevitably reminded by such lines as—

'How like an angel came I down!
How bright are all things here!
When first among His works I did appear,
O how their glory did me crown!
The world resembled His eternity
In which my soul did walk;
And everything that I did see
Did with me talk.'

The recurrent use, as in this stanza, of the expletive at once stamps Traherne as Vaughan's inferior in expression, but the tone and sentiment of the poem which thus opens are throughout so reminiscent of Vaughan as to make it as certain as such things can be, without positive proof, that his works were known to Traherne. Mr Dobell, while admitting that Traherne was familiar with Herbert's poetry, fails to 'find any proof that he was acquainted with the writings of Vaughan'; and thinks that, being 'a much stronger personality,' Traherne had 'little or nothing to learn from him.' But two editions of 'Silex Scintillans' were published before Thomas Traherne had attained his twenty-first year—if we accept Mr Dobell's date, 1636, as that of his birth; and he must have been a strong personality indeed who was above learning from that remarkable volume. Of George Herbert's influence Traherne's poems show little trace. To deny him acquaintance with the printed work of a greater poet than Herbert, and one whose influence has left its mark on many of his poems, is to tax too severely the allowance one is prepared to make for a discoverer's natural partiality.

The actual extent of Vaughan's indebtedness to Herbert, and of Traherne's to either or both, is matter of not very profitable debate; as to the intimate poetical relationship in which the three stand united there can, however, be no question. Among the devotional poets of the seventeenth century they form, as we have said, a select and separate group. Their nearest congener is Crashaw; but Crashaw had in him a fire and an impetuosity of spirit which proclaim him one of warmer blood than theirs. There is a Southern intensity of

passion and of feverish rapture about Crashaw's ecstasies of devotion, his 'thirsts of love,' his 'brim-filled bowls of fierce desire.' He stands alone among the religious poets of his time, impatient alike of the rigorous penances of the Puritans and of the decent pieties of Anglicanism, and finding only in the Church of Rome that free fellowship with saints and seraphim,

'The fairest first-born sons of fire,'

after which his ardent spirit yearned. Crashaw's poetry, more than the religious verse of any of his contemporaries, fulfils two of Milton's prime tests; it is 'sensuous' and 'passionate,' even to excess. What cannot be claimed for it is simplicity. Some of the worst enormities of the seventeenth century mania for fantastic and grotesque imagery stand to the account of Crashaw. And yet he, like the rest, derives much of his interest for the literary student from these very freaks and eccentricities.

The claim of devotional poetry to rank with the highest forms has been impugned by eminent authority. 'Poetry,' says Dr Johnson, 'loses its lustre and its power, because it is applied to the decoration of something more excellent than itself.' Even were we disposed to acquiesce in this characteristically magisterial pronouncement, we may be permitted at least to derive some pleasure from the 'decoration.' And it is just because the devotional poets of the seventeenth century bestowed so much pains upon decoration that their work remains the most interesting body of religious verse in all English literature. The 'noble numbers' of that age are something richer and rarer than the expression of mere religious feeling or devout meditation. The 'sacred thoughts and pious ejaculations' of the time were sent forth tricked and flounced with emblems and images strangely remote from the associations of the cloister and the sanctuary. As it has been said of Milton's later poems, that 'for the materials of those palaces whole provinces were pillaged,' so to the building of the miniature fanes and oratories of the lesser poets there went the spoil of many a profane city and pagan temple. These sacred songsters made it their boast to challenge and cut out the 'vulgar amorist' on his own ground. George Herbert, himself an aristocrat and a potential

courtier, essays to prove, in an age of courtly makers and high-born wits, that God's love can

'Heighten a spirit to sound out His praise
As well as any She.'

'Cannot thy Dove,' he asks,

'Outstrip their Cupid easily in flight?'

Henry Vaughan, again, turns for inspiration from Parnassus and Helicon to the Mount of Olives.

'Sweet sacred hill! on whose fair brow
My Saviour sate, shall I allow
Language to love,
And idolize some shade or grove
Neglecting thee?'

In his preface to 'Silex Scintillans' Vaughan more specifically avows in prose the purpose of his devotional songs. 'Those ingenious persons, which in the late notion are termed Wits' needed to be taught that poesy demanded higher matter than 'idle or sensual subjects.'

'The true remedy,' he continues, 'lies wholly in their bosoms, who are the gifted persons, by a wise exchange of vain and vicious subjects for divine themes and celestial praise. . . . The first that with any effectual success attempted a diversion of this foul and overflowing stream [of profane poetry] was the blessed man, Mr George Herbert, whose holy life and verse gained many pious converts, of whom I am the least.'

It is this loftiness of aim, this declared purpose of exemplifying the diviner uses of poetry, that lifts the poems of Herbert and Vaughan, in particular, above the region of fantastic experiment or of heroic *tours de force*. Their highest aspiration was, according to their gift, 'to celebrate,' in Milton's majestic words, 'the throne and equipage of God's almightiness.' None of the minor poets can, indeed, make such lofty vaunt as he who, invoking a Muse who was herself divine, sings:

'Up led by thee
Into the Heav'n of Heav'ns I have presum'd,
An earthly guest, and drawn empyreal air.'

But, in spite of their weakness of wing and their frequent

and sudden descents from the upper air to the sloughs and flats of graceless and inept conceit, the practice of sacred verse with Herbert and Vaughan was no mere perfunctory exercise, no *parergon* resorted to as a relief from the more exacting claims of secular poetry. Urania was to them, no less than to Milton, the supreme Muse. There were in the seventeenth, as in the sixteenth, century, poets who supplemented their secular verse with devotional songs; but these 'pious pieces' only too plainly suggest the painfulness of an extorted religious duty. Herrick composed his 'Noble Numbers' to procure absolution for his

'unbaptised rhymes,
Writ in my wild unhallow'd times.'

One detects, however, a much more spontaneous, if not a more sincere, note in the prayers which he offers to the Graces to prepare him to give the god of Love a proper welcome even in his old age—

'Clean my rooms, as temples be,
To entertain that deity.'

Habington, Wither, Marvell, Cowley, and others are much in the same plight; their sacred verse is the penitential tribute of a Muse that finds her prime inspiration in mundane themes. Even the excellent Quarles fails to convince us that his voluminous essays in devotional poetry were dictated by any overmastering spiritual impulse. But it is otherwise with Herbert and Crashaw, with Vaughan and Traherne. Sacred song was for them, in Vaughan's fine phrase, their 'native and celestial scope.' Both the Silurist and Crashaw could, when they chose, fall into the strain of the wits and the amorists, and hold their own with the best of them; but their main ambition was to follow in Herbert's path, and to be remembered with him as poets who were 'inspired by a diviner breath than flows from Helicon.'

Another bond of union, albeit a slight one from a literary point of view, between Herbert, Vaughan, and Traherne is that of their common birthright. All three were Welshmen. As to Traherne's Welsh origin—although Mr Dobell finds no positive evidence of it—there can really be little doubt. He was a native of Hereford,

and as the name has always been as common in South Wales as in Cornwall, it is far more likely that the Traherne of Hereford were a Welsh than a Cornish family. The original form of the name—Trahaiarn—is unquestionably Welsh, and has, besides, some literary associations; for Trahaiarn Brydydd Mawr—Trahaiarn 'the great poet'—was a well-known Welsh bard of the fourteenth century. Thomas Traherne will never, we fear, rank as a 'great poet,' either in or out of Wales; but his poetical achievement is, at least, considerable enough to allow patriotic Welshmen to take some pride in it as swelling their country's all too scanty contribution to English literature. There is, however, little that is distinctively Welsh about Traherne's poetry, any more than about Herbert's. Henry Vaughan, on the other hand, has much that attests his close kinship with the Welsh bards. Like them, he is largely, in Mr Beeching's words, 'a poet of fine lines and stanzas, of imaginative intervals,' lacking either the patience or the power to build the lofty rhyme on a monumental scale. But his intervals of inspiration, no less than theirs, afford ample compensation for much that is trivial and wearisome. Above all, he shares the greater Welsh bards' intimate love of Nature in her wilder and less conventional aspects; and his best passages of natural description reflect that magical play of the fancy which is the most charming and characteristic feature of Welsh poetry. In Vaughan's poems of Nature, however, it is not these felicities of fanciful description alone that hold us. He has a gift of divining and interpreting the messages of Nature to the heart and soul such as no other poet of his own time possessed, and he anticipates in many ways the larger and more profound gospel of Wordsworth.

Again, our three poets stand together as representatives of the best and most equable religious temper of their time. They are all Anglicans, of a staunch but moderate type. They were attached to the throne; and Vaughan even appears to have, for a time, taken up arms for King Charles. In their loyalty to Church and Crown they reflected the overwhelmingly predominant feeling of the Wales of their day. Although in later times the Principality became the stronghold of Dissent, and is still the home of many of the lost causes of seventeenth century

Puritanism, in the seventeenth century itself Wales stood by the Church and the Cavalier cause. The most popular Welsh poet of the seventeenth century, Hugh Morris, to whose home George Borrow made a memorable pilgrimage, was an ardent Royalist, and lived long enough to sing, after the Restoration, a 'Lament of the Roundheads' in a vein of exultant satire of which even Butler might have been proud. The loyalty of Wales was secured mainly by the adhesion of the great Welsh families to the Royalist cause; and with two of these noble families both Herbert and Vaughan claimed connexion.

George Herbert was descended, on his mother's side, from two of the greatest princes of mediæval Wales. The Silurist Vaughans were at no time so powerful and highly-placed a family as that of which the house of Pembroke was the head; but Henry Vaughan also could point to a distinguished and romantic ancestry. Both Vaughan and Herbert were by training and tradition 'scholars and gentlemen,' in the best sense; and in men who so well combined intellectual and religious culture we find the most enlightened and lovable, if not the most intense and active, religious type of the time. Of Traherne we cannot speak with equal certainty. His poems throw no light upon either his political or his ecclesiastical proclivities, one of their prime charms being, indeed, their appeal to what is all but a universal religious sentiment. We know, however, that he was at one time rector of Credenhill in the county of Hereford, and afterwards chaplain to Sir Orlando Bridgeman, who was made Lord Keeper of the Seals in 1667. On the strength of these biographical facts, and of further evidence furnished by his prose writings, Mr Dobell is justified in coming to the pious conclusion that Traherne's 'deeply fervent and religious nature found in the national faith, as George Herbert had found before him, the peace and satisfaction which he could find nowhere else.'

George Herbert was so exemplary a churchman that to a host of readers his churchmanship has been one of the main recommendations of his poetry. He also owes not a little of his popularity to Walton, who has extolled him as 'a pattern of virtue to all posterity, and especially to his brethren of the clergy.' The clergy, in their turn, have been sedulous in prescribing his poems as aids to

devotion; and 'The Temple,' to judge by the number and the artistic variety of new editions of the book, has never been so widely read as it is to-day. Henry Vaughan was, in his way, as loyal an Anglican as Herbert; but, being a mere country doctor, and having an occasional turn for secular verse, he has never appealed with the same intimacy as the rector of Bemerton to those who read poetry as a devotional exercise. George Herbert is indeed, not excepting even Keble, as much the pattern poet as he is the pattern country parson of the Anglican Church. The very framework, so to speak, of many of his poems is ecclesiastical; and the atmosphere of all of them is redolent of the parsonage and its precincts. Even Nature, when he walks abroad with her, speaks to him in the language of the sanctuary; the whole visible world is to him but a tissue of ministries and sacraments and divine symbols.

'I cannot ope mine eyes
But Thou art ready there to catch
My morning soul and sacrifice.'

Trees speak to him, not of beauty, but of service—of 'fruit or shade'; were he himself but a tree,

'at least, some bird would trust
Her household to me, and I should be just.'

In another poem he wishes he were an orange-tree, 'that busy plant!'

'Then should I ever laden be,
And never want
Some fruit for Him that dressed me!'

A flower by the wayside leads him into a homily upon the common vicissitudes of life, and to the personal aspiration—

'O, that I once past changing were
Fast in Thy Paradise, where no flower can wither!'

It is in this poem on 'The Flower' that we meet with what is, perhaps, the best example in Herbert's work of this spiritual interpretation of Nature, in which he is, in general, so inferior to Vaughan.

'Who would have thought my shrivel'd heart
 Could have recover'd greenness? It was gone
 Quite under ground; as flowers depart
 To see their mother root, when they have blown,
 Where they together
 All the hard weather,
 Dead to the world, keep house unknown.'

Passages of this imaginative quality occur but very seldom in Herbert's poetry. He was altogether too introspective, too deeply absorbed in the contemplative study of his own soul, to discover a soul in nature. On the other hand, the visible images and symbols of the Church were full of poetical suggestion to him. The church porch, the church floor, the altar, even the church lock and key are symbols of some spiritual truth or moral duty. The Church herself, the 'British Church' of the Reformation, presenting

'A fine aspect in fit array,
 Neither too mean nor yet too gay,'

takes bodily shape in his imagination—an apparition of ideal beauty, whose graces deserve as glowing a tribute as those of some 'not impossible She' who charms the profane amorist.

'I joy, deare Mother, when I view
 Thy perfect lineaments, and hue
 Both sweet and bright.

Beauty in thee takes up her place
 And dates her letters from thy face,
 When she doth write.'

So completely, indeed, has George Herbert subdued his Muse to the service of the Church that, to many people, he stands pre-eminently as the 'Church of England man' of his time. The late Mr Shorthouse, for example, wrote a eulogy not so much of the poet as of the churchman who typifies 'the exquisite refinement which is the peculiar gift and office of the Church of England.' He is 'the ascetic priest who was also a fine gentleman, with his fine cloth, his cambric fall and his delicate hands.' It is such men as he and Nicholas Ferrar who were 'the

true founders of the Church of England.' They 'revealed the true refinement of worship,' they 'united delicacy of taste in choice of ornament and of music with culture of expression and of reserve, and they showed that this was not incompatible with devoted work and life.'

It is a pity that Mr Shorthouse's preoccupation with Herbert's virtues as the model Anglican should appear to have led him to disparage somewhat unduly his qualities as a poet. Although he introduced a popular facsimile reprint of the first edition of 'The Temple,' Mr Shorthouse doubted 'whether Herbert's poetry will ever be generally popular again.' He did, however, claim for it 'a strength of expression and a reality of feeling which will always ensure to it an audience fit, if few.' He might have added that it is just this 'reality of feeling' which will make it impossible to impose upon readers of 'The Temple' what one may call an ecclesiastical test of fitness; there are plenty of robust lovers of poetry outside the Anglican communion who will insist upon claiming fellowship with George Herbert. But 'strength of expression' is not, we should say, an obviously striking characteristic of his poetry. He was, indeed, a more even and accomplished craftsman in verse than Crashaw, Vaughan, and the rest of the religious lyrists; but both Vaughan and Crashaw, at their best, are masters of a greater language and of clearer accents than he. Such a majestic strain, for example, as that of the well-known lines in 'Church Monuments,' where he sings of

'this heap of dust,
To which the blast of Death's incessant motion,
Fed with the exhalation of our crimes,
Drives all at last,'

is quite foreign to Herbert's usual manner. Vaughan's flashes of inspiration, or bursts of great utterance, were intermittent enough, but they far outnumber Herbert's, and reach a much higher level of poetry. When Vaughan writes—

'Where are you, shoreless thoughts, vast tenter'd hope,
Ambitious dreams, aims of an endless scope,
Whose stretch'd excess runs on a string too high
And on the rack of self-extension die?'

or—listening to ‘a shrill spring tuning to the early day’—

‘I summon’d Nature; pierc’d through all her store;
 Broke up some seals which none had touched before,
 and having past
 Through all the creatures, came at last
 To search myself, where I did find
 Traces, and sounds of a strange kind.
 Here of this mighty spring I found some drills
 With echoes beaten from th’ eternal hills’;

or the more familiar lines—

‘I saw Eternity the other night
 Like a great ring of pure and endless light,
 All calm, as it was bright;
 And round beneath it, Time, in hours, days, years,
 Driv’n by the spheres,
 Like a vast shadow mov’d; in which the world
 And all her train were hurl’d,’

he displays at once a range of imagination and a power of expression of which Herbert was incapable.

Herbert, however, must be adjudged the Silurist’s superior in uniform excellence of style and in technical accomplishment. He has, it is true, defective rhymes and strained conceits in plenty, but he is not on either count so flagrant and careless a sinner as Vaughan. While he is much given to fantastic experiment in his stanzaic forms, his verses show, on the whole, a saving regard for structural symmetry and coherence. Even in the stock examples of ‘The Altar’ and ‘Easter Wings’ the curious emblematic form is adapted to a tolerably pleasing metrical movement. The pursuit of anagrams, acrostics, and emblematic devices of all sorts became a disease of the smaller poets of the seventeenth century; and Herbert was so far responsible for spreading the epidemic that Dryden must have had him in mind when he consigned Shadwell to that ‘peaceful province in Acrostic-land’ where he might

‘wings display and altars raise,
 And torture one poor word ten thousand ways.’

Herbert is no word-torturer, in Dryden’s sense, but he must be held to have wasted a good deal of ingenuity

alike upon verbal conceits and metrical innovations. As to his conceits, Herbert is candid enough; he was simply following the fashion, and, having undertaken to prove that poetry did not 'serve Venus' turn alone,' was at pains to deck his pious thoughts in finery as attractive as that in which the wits clothed their gay fancies. As he tells us,

'When first my lines of heavenly joys made mention,
Such was their lustre, they did so excell,
That I sought out quaint words and trim invention,
My thoughts began to burnish, sprout and swell,
Curling with metaphors a plain intention,
Decking the sense as if it were to sell.'

This avowal notwithstanding, the greater part of Herbert's work is tolerably free from the worst kind of excesses to which the metaphysical poets were addicted. His thoughts rarely 'sprout and swell' into anything very gross and rank. Such quaint titles as 'The Pulley,' 'The Collar,' 'The Bag'—suggestive as they are of hazardous freaks of metaphor and simile—appear over poems simple enough in conception and agreeably chaste in expression. And when he does give the rein to his whim for 'trim invention,' he handles his conceits with a certain lightness of touch which makes them almost pleasant in contrast with the laboured fantasticalities of Vaughan and Crashaw.

'Reality of feeling' is, after all, the secret of the abiding charm of George Herbert's poetry. His 'private ejaculations' are the authentic utterance of a profound spiritual experience. The poet himself, when he sent them from his death-bed to the care of Nicholas Ferrar, described them as 'a picture of the many spiritual conflicts that had passed between God and his soul.' 'The Temple' is far from being what its title suggests, the serene meditations of a priest at rest in the sanctuary. It is rather, like the 'Pilgrim's Progress,' the record of the adventures of a soul on the great quest. Many will doubtless find it a pleasing exercise to determine from his poems, and from his 'Country Parson,' the precise height of Herbert's churchmanship; but many more will prefer to dwell on the qualities which make him, like the greater Puritans, the exclusive possession of no particular

church. His place is, indeed, with the Puritans—with Bunyan, with Baxter, with Milton. For when Herbert forgets his church floor, his windows, his altars, and his vestments, he is on common ground with the men to whom the fortunes of the individual soul in its flight from the City of Destruction was the most tremendous of human interests. 'The Temple' is much more than a denominational book. It belongs, with all its limitations, to that catholic library of personal confessions where spirits so different in creed, in temperament, in circumstance, as Marcus Aurelius and Augustine, Thomas à Kempis and John Bunyan, Cowper and Keble, Newman and Amiel, are ranged side by side, with none to question their right of fellowship in the common pursuit of a far-shining and imperishable ideal.

'The least of the many converts,' as he describes himself, 'gained by the holy life and verse' of George Herbert, Henry Vaughan was a more complex character and a better poet than his master. Although his conversion came about at a fairly early age in a long and apparently uneventful life, he was never able to emancipate himself completely from the influences that moulded his youth. Not that his piety suffered any declension, even during the thirty-five years he lived after the Restoration; but what no observant reader of Vaughan can fail to notice is a sort of wistful sympathy with the great worldly wits into whose ken he seems, for a brief spell during his youth, to have floated. Destined originally by his father for a legal career, he spent some time in London after he left Oxford; and 'A Rhapsodie' included in his first volume of poems tells of his meetings with the literary roisterers who foregathered at the Globe Tavern. Having thus acquired an initiation, however brief, into 'the way that takes the town,' it was hardly to be expected that one who afterwards spent his life as a country doctor should have found it as easy to resign himself unreservedly to pious exercises as it was for a country parson. For, apart from his early experiences and the inevitable distractions of his calling, Vaughan had more subtle spiritual enemies to contend with than Herbert. Anthony à Wood speaks of him as being 'esteemed by scholars, an ingenious person, but proud and humorous.'

Vaughan had wild blood in his veins, and was constantly haunted by visions of 'those brave trans-lunary things' which had fired the imagination of the intrepid spirits of the Renaissance. He belonged to a family which, like most Welsh families of its class, boasted of a wonderful pedigree; and, after making all allowance for the romantic extensions to which such pedigrees lend themselves, there seems to be good reason for believing that the Davy Gam, Esquire, who fought at Agincourt, and the Sir Thomas Vaughan, who was murdered by Richard III, were both of the stock of the 'Silurist' Vaughans with which the poet claimed connexion. Such ancestry suggests a more turbulent strain of Welsh blood and passion than that of the Herberts; and Vaughan's poetry does not belie his pedigree. Incited by Herbert's example, he gave the best that was in him to the service of religion; but 'Silex Scintillans' introduces us into a very different religious atmosphere from that of 'The Temple.' We have here the meditations of no cloistered recluse, but of one who, had he possessed either the courage or the capacity to give full expression to all his visions and imaginings, had given us a 'religion of Nature' transcending the bounds of any accepted ecclesiastical formulary. Even as they stand, Vaughan's fitful and broken records of his communings with Nature seem strangely out of place in the seventeenth century. No poet of his time gives us the same impression of being constantly visited by 'fancies that broke through language and escaped.'

For, on the last estimate, one is forced to confess that Henry Vaughan's power of expression was not equal to his imagination; he had 'more of the vision than of the faculty divine.' But he was, at any rate, one who took a genuine and painful interest in the poet's art. 'At how dear a rate,' he writes to his brother poets,

'Are we made up! All hope of thrift and state
Lost for a verse.'

His concern for poetry, and for literature generally, was much deeper and more catholic than Herbert's. He ever loved to hark back to the manner of the later Elizabethans; and echoes of Donne and Ben Jonson seem to have lingered in his ears to the last. 'Thalia Rediviva,'

his last volume of poems, contains love-songs which, in everything except their unsullied cleanness of thought, recall the very accent of the Jacobean amorists. The *Fida* and the *Etesia* of these later songs are but more idealised portraits of the *Amoret* of whom, in direct imitation of Donne, he had sung in his first volume. A poet so beset with memories of the golden age of profane wit, subject to 'humours,' the friend of scholars and the inheritor of romantic family traditions, was not the kind of man one would expect to take naturally and easily to the composition of devotional poetry. But, falling under the spell of a saintly character, he tendered his choicest gifts at the shrine of *Urania*, with the result that, with the average reader of poetry, his name remains inseparably linked with that of his spiritual master. Vaughan, however, owed little to Herbert except his conversion. All that is best and most impressive in his poetry is neither imitative nor derived, but the original and, in its time, unique expression of the musings of one who, in the words of Dr John Brown, author of '*Horae Subsecivae*'—a kindred soul, who was one of the *Silurist's* first discoverers among modern critics—'lived from day to day in the eye of Nature, and in his solitary rides and walks in that wild and beautiful country found full exercise for his fine sense of the beauty and wondrousness of all visible things.'

Born at *Scethrog* in *Brecknockshire* in 1622, Henry Vaughan spent his boyhood amid romantic surroundings. Hard by his home flows the river *Usk* on its way to the fabled *City of Legions* where, in 'a passing pleasant place,' *King Arthur* held the court that, according to *Geoffrey of Monmouth*, drew unto it the flower of the chivalry and prowess of all western Europe. Vaughan either knew or cared little about the ancient traditions of his race; and the *Arthurian* associations of the *Usk* do not seem to have appealed to his imagination. But he has not left his natal river unsung. On the contrary, with a poet's ingenuous or affected belief in the immortality of his verse, he claims that the 'vows' which he pays to the river in one of his poems are just what

'shall from age to age thy fair name lead,
'Till rivers leave to run, and men to read.'

This votive tribute appeared in a volume called '*Olor Iscanus*,' which was published in 1651—the year after the appearance of the first edition of '*Silex Scintillans*'—and represents, probably, the poet's earlier work. The entire volume consists of secular poems, and it has perplexed some of Vaughan's critics to explain how such a collection of profane verse came to be issued after the conversion which, as he tells us in the preface to '*Silex Scintillans*,' led him 'to communicate his poor talent to the Church.' There is no real difficulty about the matter; for it is plain that Vaughan, unlike Herbert, never altogether forsook the pleasant paths of profane poetry. Nor had he serious cause to feel ashamed of anything that appeared in his name either in '*Olor Iscanus*' or in the first small volume of poems which was printed in 1646. '*Thalia Rediviva; the Pass-Times and Diversions of a Countrey-Muse*,' published in 1678, contains, in addition to a number of devotional poems, several pieces of secular verse, including even some love-songs, which must have been written long after the seemingly final renunciation announced in '*Silex Scintillans*.' Poetry never ceased to be an artistic exercise and pastime with Henry Vaughan; and, although '*Silex Scintillans*' is the largest and the best of his four published volumes of poems, he who confines his reading to that volume alone will derive but a very one-sided notion both of the man and of his poetry.

It is, however, with '*Silex Scintillans*' that we are mainly concerned in the present article. The strictly devotional element, whether in the edition of 1650 or the enlargement of 1655, differs little, if at all, from that of the various collections of 'private ejaculations' of which '*The Temple*' is at once the pattern and the paragon. Traherne's sacred musings wander much further from the conventional circle of devout contemplation than Vaughan's. The Silurist, with all the zealous attachment of a convert to his spiritual benefactor, strenuously cultivates the forms both of religion and of religious verse sanctioned by George Herbert's example. His churchmanship is as unexceptionable as that of his master; he is a steadfast Anglo-Catholic who subscribes with all his heart to Herbert's opinion and aspiration as to the British Church—

'The mean thy praise and glory is,
And long may be.'

Into the quarrel about the precise extent of Vaughan's poetical debt to George Herbert we have no disposition to enter. We are quite prepared to admit that Vaughan derived from Herbert a good many 'pious thoughts' which, in his verse, he did not better in the borrowing. Dr Grosart, who is almost as partial to the Silurist as Mr Dobell is to Traherne, would 'limit Vaughan's debt almost wholly to spiritual quickening and the gift of gracious feeling.' But no unbiassed reader of the two books can help, in our opinion, coming to the conclusion that a very large proportion of the poems in 'Silex Scintillans, alike in their themes, their metrical form, and even in many of their turns of expression, are conscious imitations of 'The Temple.' In his notes to the first volume of the 'Muses' Library' edition of Vaughan's poems, Mr E. K. Chambers has made it his main business to give as complete a list as possible of these parallels. And in the introduction to the same volume Mr Beeching sums the matter up very fairly when he states that Vaughan owed to Herbert 'the practice of religious poetry, that he followed him in the employment of certain metres and in the treatment of certain topics, that he was content to adopt certain of his tropes and phrases, and to vie with him in the manufacture of curious conceits.'

Even so, the Silurist's superiority in the qualities of imagination, of passion, of illuminating thought and vision remains unassailed. It is usual to speak of him as a mystic. Esteemed, as we know him to have been, by his friends as 'an ingenious person,' Henry Vaughan may have shared something of the mental temperament of his still more ingenious twin-brother, Thomas, who is described by Anthony à Wood as 'a noted son of the fire, an experimental philosopher, and a zealous brother of the Rosicrucian fraternity,' and whose recondite prose treatises entitle him to be regarded as a sort of mystic by profession. There is, however, little, if any, trace in Vaughan's poetry of such mysticism as one associates with some particular cult or school of thought, like that of his contemporaries the Cambridge Platonists. The Platonic

doctrine which inspired the main thought of his most famous poem, 'The Retreat,' or the mystic ecstasy of such lines as—

'There is in God, some say,
A deep but dazzling darkness; as men here
Say it is late and dusky, because they
See not all clear.
O for that night! where I in Him
Might live invisible and dim!'

reflect no more than occasional moods of the poet, 'moving about in worlds not realised.' What, on the other hand, he did realise to an extraordinary degree was the divine message of the living and visible creation. Love of Nature pure and simple is the foundation of what is best and most characteristic in Henry Vaughan's poetry, and in his spiritual interpretation of Nature's life there is nothing esoteric or mystical.

'Walk with thy fellow-creatures; note the hush
And whispers amongst them. There's not a spring
Or leaf but hath his morning-hymn. Each bush
And oak doth know I AM. Can'st thou not sing?

* * * * *

When seasons change, then lay before thine eyes
His wondrous method; mark the various scenes
In heav'n; hail, thunder, rainbows, snow and ice,
Calms, tempests, light and darkness, by His means;
Thou can'st not miss His praise; each tree, herb, flower
Are shadows of His wisdom and His power.'

This is a 'natural religion' which is unsophisticated and straightforward enough, and at the basis of it all lay a frank delight in and a passion for Nature for her own sake.

'Fresh fields and woods! the Earth's fair face!
God's footstool! and man's dwelling-place!
I ask not why the first believer
Did love to be a country liver.'

That Vaughan himself was not only a devout but a blithe and observant lover of the country, with eye and ear alive to all the beauty and the wonder of the natural world, is amply attested by poem after poem in 'Silex

Scintillans.' The very first poem of all is full of felicitous touches of natural description.

'A ward, and still in bonds, one day
I stole abroad;
It was high Spring, and all the way
Primros'd, and hung with shade.'

* * *

'The unthrift sun shot vital gold,
A thousand pieces;
And heaven its azure did unfold
Chequer'd with snowy fleeces;
The air was all in spice,
And every bush
A garland wore; thus fed my eyes,
But all the earth lay hush.
Only a little fountain lent
Some use for ears,
And on the dumb shades language spent
The music of her tears.'

Another poem opens with the fine image,

'Tis now clear day; I see a rose
Bud in the bright East, and disclose
The pilgrim-sun.'

Vaughan is at his best when he sings of the dawn, recording, as he doubtless does, the august impressions often made upon his mind by the vision of the sun rising to greet him on his lonely rides in the pursuit of his calling over the Breconshire moorlands. 'It is the only time,' he writes,

'That with Thy glory doth best chime;
All now are stirring, ev'ry field
Full hymns doth yield;
The whole creation shakes off night,
And for Thy shadow looks, the light;
Stars now vanish without number,
Sleepy planets set and slumber,
The pury clouds disband and scatter,
All expect some sudden matter.'

His was a mind that let itself be constantly attuned to

Nature's moods, finding in her, like Wordsworth, 'a nurse, a guide, a guardian,' and conscious that, in his own words, despite

'what man
With all his plots and power can,'

yet

'none can sequester or let
A state that with the sun doth set,
And comes next morning fresh as he.'

Living as he did in a country which derives much of its beauty from its watered glens and its mountain tarns, it is but natural that Vaughan should delight in describing, and in turning to uses of devotion, the varied phenomena of water. His poems on 'The Shower' and 'The Waterfall' are signal examples of his success alike in vivid description and in apt personal application. 'I saw thy birth,' he writes of 'the Shower,'

'That drowsy lake
From her faint bosom breath'd thee, the disease
Of her sick waters and infectious ease.
But now at even,
Too gross for heaven,
Thou fall'st in tears, and weep'st for thy mistake.'

'The Waterfall' is a still more imaginative and suggestive picture.

'With what deep murmurs, through Time's silent stealth,
Doth thy transparent, cool, and wat'ry wealth
Here flowing fall,
And chide and call,
As if his liquid, loose retinue stay'd
Ling'ring, and were of this steep place afraid,
The common pass,
Where clear as glass
All must descend
Not to an end,
But quick'ned by this deep and rocky grave,
Rise to a longer course more bright and brave.'

Equally happy is he in his imaginative descriptions of the phenomena of light—the changing aspects of a cloud-chequered sky, the play of sunlight upon rock and leaf and flower,

‘whose proud
 And previous glories gild that blushing cloud;
 Whose lively fires in swift projections glance
 From hill to hill, and by refracted chance
 Burnish some neighbour-rock, or tree, and then
 Fly off in coy and wingèd flames again.’

And we know not what other poet has given better expression to the divine influences that are abroad on a brilliant May morning than that found in the following lines on ‘Ascension Day’ :—

‘The Day-star smiles, and light, with Thee deceas’d,
 Now shines in all the chambers of the East.
 What stirs, what posting intercourse and mirth
 Of Saints and Angels glorify the Earth!
 What sighs, what whispers, busy stops and stays!
 Private and holy talk fill all the ways.
 They pass as at the last great day, and run
 In their white robes to seek the Risen Sun;
 I see them, hear them, mark their haste, and move
 Amongst them, with them, wing’d with faith and love.’

Space forbids making more than a passing reference to Vaughan's last volume, ‘Thalia Rediviva,’ which contains the best examples of his secular verse. Here the poet, drifting to some extent from the influence of Donne and Herbert, appears as a rather painful follower of Denham and Waller. Many of the poems are in the heroic couplet, in which Vaughan does not move very easily; he is much more at home in the octosyllabic couplet, and his addresses to Fida and Etesia in this measure will bear comparison with some of the best love poetry of the seventeenth century. This last volume reveals the poet as no less a lover of books than of Nature—books,

‘the still voice
 Of enlarg’d spirits, kind Heav’n’s white decoys!
 Who lives with you, lives like those knowing flow’rs,
 Which in commerce with light spend all their hours.’

And in this dual commerce with the light of books and of Nature Henry Vaughan ended his days at the ripe age of seventy-three. He lies buried, close to his native Scethrog, in the little churchyard of Llansantffraid.

As a poet of Nature Henry Vaughan, as the few quotations above given sufficiently attest, is a forerunner of Wordsworth. But to the average reader his name is associated with Wordsworth by reason, not so much of what they have in common as poetical interpreters of Nature, as of the fact that a particular poem of Vaughan's is supposed to have suggested to Wordsworth the germinal thought of his 'Ode on Intimations of Immortality.' Wordsworth himself is silent about the matter; but it is known that he possessed a copy of 'Silex Scintillans'; and when we find Vaughan, in 'The Retreat,' regretfully looking back upon the days of his 'angel-infancy,'

'When on some gilded cloud or flow'r
My gazing soul would dwell an hour,
And in those weaker glories spy
Some shadows of eternity'—

days which made him feel

'through all this fleshly dress
Bright shoots of everlastingness,'

and

'long to travel back
And tread again that ancient track!
That I might once more reach that plain
Where first I left my glorious train!'—

we are forced to believe that there must be something more than an accidental resemblance between these lines and passages that will at once occur to any one familiar with the great Ode.

There is not much more perhaps than a faint hint at the doctrine of 'recollection' in 'The Retreat'; nor have we evidence that it was to Vaughan anything more than a passing poetical fancy. Thomas Traherne, on the other hand, was one to whom this Platonic idea, or something very like it, was a constant obsession. Recollections of early childhood, as reflected in a mind continually brooding over the mystery and the wonder of the universe, are the very substance of Traherne's poetry. Indeed, he is not to our mind of any great account as a poet at all save when he sings of 'angel-infancy.' The majority of his poems are but versified arrangements of thoughts which might just as well find their adequate expression in plain

prose, and some of which Traherne himself has much better expressed in the extracts supplied to us by Mr Dobell from his prose 'Centuries of Meditations.' These poems have little in common with the better religious verse of their period; in imagination, in fancy, in all that is either legitimate or fantastic in the way of 'decoration,' they are poor indeed by the side of the work of Herbert and Vaughan. But when we turn to the poems on childhood we are in a different atmosphere. There is nothing quite like them in the whole range of English poetry. It is safe, we think, to make at least this claim for Traherne, that no poet has succeeded in recalling so intuitively and vividly the impressions of a child when he first awakes to all the beauty and the wonder and the glory of the world around him. Critics may cavil at his faults in technique, at his imperfect rhymes, at his constant resort to the feeble aid of expletives, at his almost garrulous repetitions; but there is matter in these songs of childhood arresting and original enough to atone for many technical weaknesses; and here, had he known them, Wordsworth would have found a store of richer suggestion about 'that dreamlike vividness and splendour which invest objects of sight in childhood' than in all the other literary records of child experience to which he had access.

Even more suggestive, along the same line of thought, are some of Traherne's prose 'Meditations.'

'I knew not,' he writes of the boys and girls who were the companions of his infancy, 'that they were born or should die. But all things abided eternally as they were in their proper places. Eternity was manifest in the Light of the Day, and something infinite behind everything appeared, which talked with my expectation and moved my desire. . . . All appeared new and strange at first, inexpressibly rare and delightful and beautiful. I was a little stranger which, at my entrance into the world, was saluted and surrounded with innumerable joys. My knowledge was Divine; I knew by intuition those things which, since my apostacy, I collected again by the highest reason. . . . Everything was at rest, free and immortal. I knew nothing of sickness or death or exaction. In the absence of these I was entertained like an angel with the works of God in their splendour and glory; I saw all in the peace of Eden; heaven and earth did sing my

Creator's praises, and could not make more melody to Adam than to me. All Time was Eternity and a perpetual Sabbath. Is it not strange that an infant should be heir of the whole world, and see those mysteries which the books of the learned never unfold?'

How inevitably, as we read these words, do the memorable lines leap to our lips—

'Thou best Philosopher, who yet dost keep
Thy heritage, thou Eye among the blind,
That, deaf and silent, read'st the eternal deep,
Haunted for ever by the eternal mind—
Mighty Prophet! Seer blest!
On whom those truths do rest
Which we are toiling all our lives to find,
In darkness lost, the darkness of the grave;
Thou over whom thy Immortality
Broods like the Day.'

Let us, for a moment, turn to Traherne's poetical expression of what thus 'talked with his expectation and moved his desire' in early childhood. 'On News' is the quaint title given to the poem which opens with the words quoted at the beginning of this article, and which is, perhaps, the most articulate utterance Traherne has given us of his own 'intimations of immortality.'

'News from a foreign country came,
As if my treasure and my wealth lay there;
So much it did my heart enflame!
'Twas wont to call my soul into mine ear
Which thither went to meet
The approaching sweet,
And on the threshold stood,
To entertain the unknown Good.
It hovered there
As if 'twould leave mine ear,
And was so eager to embrace
The joyful tidings as they came,
'Twould almost leave its dwelling-place
To entertain that same . . .

What sacred instinct did inspire
My soul in childhood with a hope so strong?
What secret force mov'd my desire
To expect my joys beyond the seas, so young?

Felicity, I knew,
 Was out of view;
 And, being here alone,
 I saw that happiness was gone
 From me. For this,
 I thirsted absent bliss,
 And thought that sure beyond the seas,
 Or else in something near at hand
 I knew not yet (since nought did please
 I knew) my Bliss did stand.'

Another poem, from which we have already quoted a stanza, is entitled 'Wonder,' and expresses the innocent and wondering delight of a child who feels himself to be 'the heir of the whole world.'

'The skies in their magnificence,
 The lively, lovely air,
 Oh how divine, how soft, how sweet, how fair!
 The stars did entertain my sense,
 And all the works of God, so bright and pure,
 So rich and great did seem,
 As if they ever must endure
 In my esteem.

A native health and innocence
 Within my bones did grow;
 And, while my God did all his Glories show,
 I felt a vigour in my sense
 That was all Spirit. I within did flow
 With seas of life, like wine;
 I nothing in the world did know
 But 'twas divine.'

One who lived in the light of this simple and joyous faith could not

'dream of such a thing
 As sin, in which mankind lay dead.
 They all were brisk and living wights to me,
 Yea, pure and full of immortality.'

'No darkness then did overshadow,
 But all within was pure and bright;
 No guilt did crush nor fear invade,
 But all my soul was full of light.

A joyful sense and purity
Is all I can remember;
The very night to me was bright,
'Twas Summer in December.'

Where Traherne parts company, not only with Herbert and Vaughan, but with all the hierophants—whether poets or philosophers, Anglicans or Puritans—of his time, is in his application of this simple creed of childhood to the conditions of adult life. Peace and happiness, he thinks, can only come to the distracted soul through the recovery of the beatific vision which enables the child to look upon all Nature as his divine and proper inheritance. 'The riches of invention, . . . gold, silver, houses, land, clothes,' etc., as he tells us in his 'Meditations,' have combined to make us blind to the 'riches of Nature.' 'The riches of Nature are our souls and bodies, with all their faculties, senses, and endowments; and it had been the easiest thing in the whole world to teach me that all felicity consisted in the enjoyment of all the world, that it was prepared for me before I was born, and that nothing was more divine and beautiful.' This is no ascetic, but one who believes in the possibility of a perfect correspondence between the natural and the spiritual, and who could say with Rabbi Ben Ezra—

'As the bird wings and sings,
Let us cry "All good things
Are ours, nor soul helps flesh more, now, than flesh
helps soul."'

'Natural things,' he continues, 'are glorious, and to know them glorious.' Let us then enjoy them in the spirit in which God meant them to be enjoyed.

'For God enjoy'd is all His end.
Himself He then doth comprehend
When He is blessed, magnified,
Extoll'd, exalted, prais'd and glorified.

. For He
Doth place His whole felicity
In that,—who is despised and defied,
Undeified almost if once denied.'

These few quotations will serve to show that in Traherne has been discovered, if not a poet of a very

high order of artistry, at least a thinker of rare originality and imaginative power. We cannot here follow Mr Dobell and others in their pursuit of parallels between Traherne and later philosophers and poets—how in many of his fancies and speculations he anticipates not only Wordsworth, but Berkeley and Rousseau, Blake, Browning, and Whitman. Let what Mr Dobell calls ‘a clear prevision of the Berkeleian philosophy’ serve as an instance of the possibilities of such quests. All Nature’s treasures, writes Traherne,

‘Were my immediate and internal pleasures,
Substantial joys which did inform my mind.
With all she wrought
My soul was fraught;
And every object in my heart a thought
Begot, or was: I could not tell
Whether the things did there
Themselves appear,
Which in my spirit *truly* seemed to dwell,
Or whether my conforming mind
Were not even all that therein shin’d.’

The form in this, as in the rest of the poems, may leave something to be desired, but the thought is fine, and is a fair sample of the many precious things which the patient reader will discover in Mr Dobell’s volume. Both Traherne and his editor, as we have hinted, make some demands on our patience, but nowhere to such an extent as to forfeit our interest. The long introduction, notwithstanding some critical indiscretions, is full of matter; and no one can fail to be held by the story of the discovery, or to be convinced by the proofs of the poet’s identification. Should the reader, on the strength of the passages quoted in the introduction, come to the same conclusion as ourselves, that Traherne is a better prose-writer than poet, Mr Dobell cannot complain. He promises an early issue of the ‘Centuries of Meditations,’ and he has revealed enough of their contents to give us assurance that in Traherne’s prose manuscripts he possesses, if anything, a greater treasure than his poetry.

W. LEWIS JONES.

Art. VII.—THE ANIMALS OF AFRICA.

1. *On the Classification and Distribution of the Alectoromorphæ and Heteromorphæ.* By T. H. Huxley. Proceedings of the Zoological Society. London, 1868.
2. *Text-book of Palæontology.* By K. A. von Zittel. Translated and edited by C. R. Eastman. Vols I and II. London: Macmillan, 1900 and 1902.
3. *Anniversary Address to the Geological Society.* By W. T. Blanford. Proc. Geol. Soc. London, 1890.
4. *Geological and Faunal Relations of Europe and America during the Tertiary Period, and the Theory of Successive Invasions of an African Fauna.* By H. F. Osborn. 'Science,' Series 2, vol. XI, 1900.
5. *Extinct Vertebrates from Egypt.* By C. W. Andrews. 'Geological Magazine,' Decade 4, vol. VIII, 1901.
6. *Note on Arsinoetherium zitteli from the Eocene of Egypt.* By H. J. L. Beadnell. Cairo Survey Dept., 1902.
7. *The Law of Adaptive Radiation.* By H. F. Osborn. 'American Naturalist,' vol. XXXVI, 1902.
8. *On Okapia, a New Genus of Giraffidæ from Central Africa.* By E. Ray Lankester. Transactions of the Zoological Society. London, 1902.
9. *The Evolution of the Proboscidea.* By C. W. Andrews. Philosophical Transactions, B., vol. 196, 1903.

DURING the past few years the zoological world has been startled by the announcement of the discovery in central-eastern Africa of an entirely new type (so far as existing animals are concerned) of giraffe-like ruminant, the okapi (fig. 1), and also, in the north-eastern part of the same continent, of the remains of a number of extinct mammals unlike any previously known to science, the latter remains having been obtained from strata of lower Tertiary or Eocene age in the Libyan desert. The okapi, as a living mammal of large size, peculiar shape, and strange colouring, has naturally attracted a large share of popular attention; whereas the extinct forms, in spite of their strangeness, have been but little noticed by the general public.

Nevertheless, there can be no doubt that the discovery of these extinct Egyptian Eocene mammals far outweighs in importance that of the okapi. For instance, certain

fossil ruminants from the Pliocene formations of Greece, Samos, and elsewhere, are so nearly allied in structure to the okapi that the discovery of a living representative, interesting and important as it undoubtedly is, has added little or nothing to our knowledge of the general structure and affinities of the group. It is true that the dry bones of its extinct kindred would never have enabled us to guess at the strange and bizarre coloration of the living okapi; any more than would those of extinct giraffes have

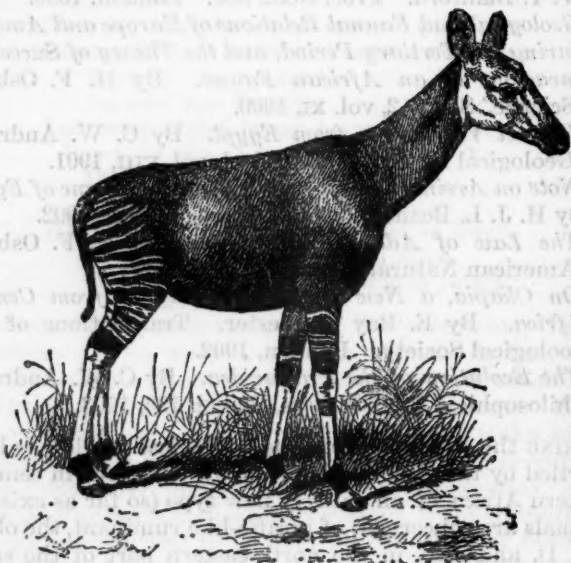


FIG. 1.—FEMALE OKAPI.

permitted us to predicate the nature of the colouring of their existing representatives. But coloration, although of great interest from many points of view, is in the main correlated merely with the adaptation of animals to their natural surroundings, and has little or nothing to do with their general structure and relationships. Moreover, no comparison is possible in this respect between the recent and extinct members of a group. While fully admitting the interest attaching to the okapi, it must therefore be confessed that zoological science would not

have been very greatly the poorer had the creature never been discovered.

On the other hand, the extinct mammals from the Eocene of the Fayum district of the Libyan desert have enabled us to solve a problem which, from the very nature of the case, had hitherto puzzled the ingenuity of the cleverest of zoologists and palæontologists—to wit, the origin of the elephants and their extinct relatives the mastodons. Till the discovery of these wonderful Fayum skulls, bones, and teeth, the Proboscidea, as the elephants and their extinct allies are termed in zoology, formed an entirely isolated group—a kind of no-man's child—whose ancestry it was impossible even to conjecture, although it was known that they were nearly related to the typical ungulates, or hoofed mammals. Our new information enables us to bring them into line with that group, and to point to ancestral forms not differing very widely from several well-known generalised types, although all the branches of the ancestral tree cannot yet be traced into complete connexion with the parent stem. Incidentally, it may be added, these discoveries have enabled Dr Andrews to trace out the evolution of that most wonderful organ, the elephant's trunk.

Nor is this by any means all; for these Egyptian fossils have furnished strong indications of the existence of an affinity between the ancestral Proboscidea and the marine Sirenia, of which latter the manati and the dugong are the sole existing survivors. Although such an affinity had been previously suspected, it had of late years been overlooked; and it was reserved for Dr Andrews to point out how many remarkable resemblances exist between even the existing members of the two groups. As it is, the evidence is not yet fully worked out, but there is good reason to believe that ere long we shall regard manatis and dugongs as nothing more than a highly aberrant and aquatic modification of the proboscidean stock.

To take another instance of the importance of these discoveries: the hyraces—the miscalled coneys of Scripture—forming the Hyracoidea of zoologists, were till lately regarded as another altogether isolated group of ungulate mammals of which the past history was an absolute blank. The aforesaid palæontological discoveries in Upper Egypt, as well as others made a few years earlier in Samos and

certain parts of southern Europe, have, however, brought to light the former existence of a whole host of ancestral forms, some of which were of large bodily dimensions; and there seems a probability that this group, too, may prove to be more or less intimately related to the Proboscidea.

This is one aspect of the subject; but there is a second, and not less important aspect, from which the discovery of both the okapi and the aforesaid extinct Egyptian mammals may be regarded. It throws a light on the question of the source whence Africa derived its existing mammalian fauna. In other words, is this fauna wholly or partly indigenous, and has it been a source of supply for other regions of the Old World? or are its members (all or some) comparatively recent immigrants into the Dark Continent from other countries? It is from this point of view that the animals of Africa—and by 'animals' I mean mainly mammals—will generally be regarded in the present article.

Next to Australasia and South America, that portion of Africa lying to the south of the Sahara desert, together with the southern half of the Arabian peninsula (which evidently forms a part of the same great zoological province), differs, indeed, much more decidedly, in respect to the animals by which it is inhabited, from the other three continents of the world than does any one of the latter from the remaining two. Ethiopian Africa, as this portion of the great southern continent is termed by students of animal distribution, is in part the home of a very large number of species and groups of animals quite unknown (with the exception of the comparatively few met with in southern Arabia) elsewhere at the present day. And the question as to the mode in which this peculiarity of the fauna originated is one which has of late years attracted much attention on the part of naturalists. Needless to say, the conditions of the problem have been profoundly modified by the discovery of the Eocene fauna of the Fayum district.

At the outset it may be well to state that the difference between the mammalian fauna of Ethiopian Africa and that of the northern hemisphere generally is in no wise comparable to that which exists between the animals of

South America or of Australasia and those of the rest of the world on the one hand, or between those of South America and those of Australasia on the other. With the exception of the hyraces (which range into Syria), Africa has now, indeed, no absolutely, or even nearly, peculiar ordinal or subordinal groups of mammals of its own comparable to the edentates (sloths, ant-eaters, and armadillos) of South and Central America, or the marsupials and egg-laying mammals of Australasia. The difference between its fauna and that of the northern hemisphere is in general one of degree rather than of kind. Moreover, many of the types now confined to the Ethiopian area, such as hippopotami, giraffes, okapis, various groups of antelopes, and ostriches, were represented during a past epoch in Asia and other parts of the northern half of the eastern hemisphere by more or less closely allied forms. Accordingly, the more advanced students of distribution are now agreed that, from this standpoint, the globe may be divided into three primary 'realms.' These are Notogæa, or Australasia; Neogæa, or South and Central America, together with a portion of Mexico; and Arctogæa, which includes the whole of the land areas of the rest of the world.

As regards the peculiarities presented by the Ethiopian fauna, and more especially mammals, it is noteworthy that, from this point of view, the absence of certain groups is almost as important as the presence of others unknown beyond its limits. Ethiopian Africa, for example, possesses no deer (although its antelopes are constantly so misnamed by sportsmen), no bears, and (with the exception of one species in Upper Nubia) none of the typical swine, that is to say, none akin to the wild boar of Europe. Tapirs form another group unknown in Africa. Wild sheep and, to a great extent, wild goats are likewise conspicuous by their absence; the former being quite unknown, while the latter are represented by only one species in Nubia and a second in Abyssinia; a third representative (belonging to an otherwise Himalayan and South Indian group) occurs within the Ethiopian region in the south of Arabia. Among smaller mammals we observe an entire lack of true shrews, musk-shrews, moles, marmots, susliks, chipmunks or striped ground-squirrels, beavers, voles, and picas. To mention the

absentees in other groups of animals is impossible, but the lack of true geese and of fresh-water crayfish is an important fact to which attention may be directed.

Passing on to a necessarily brief review of some of the more important mammalian types characteristic of Ethiopia, we find, firstly, the two great man-like apes, the chimpanzee and the gorilla, which are now the sole representatives of their kind, although the teeth and jaws of an extinct member of the group have been discovered in the upper Tertiary deposits of north-western India. The baboons and monkeys of Ethiopia are all likewise generically distinct from those of the rest of the world; perhaps the most notable of these being the dog-faced baboons (a few of which range into Arabia) and their relatives the hideous drill and mandrill of the west coast. Here we have, however, to notice the occurrence of fossil dog-faced baboons in India. Of other representatives of the order Primates, the pretty little woolly galagos, together with the short-tailed pottos and awautibos of the west coast (often collectively mis-called sloths), constitute two altogether peculiar groups of the lemur tribe.

No less than three families of insect-eating mammals, namely, the long-nosed jumping shrews, of which there are two or three distinct generic types, the golden moles, recognisable by the iridescent sheen of their fur, and the *Potamogalidæ*, typified by the small otter-like species discovered by du Chaillu in the rivers of the west coast, are practically confined to the Ethiopian region, although a second representative of the third group is a native of Madagascar. In past times, however, jumping shrews ranged into Europe, as is testified by the occurrence of their fossilised remains in the middle Tertiary beds of France.

Among the Carnivora, the graceful genet, of which one species is found in South Europe and North Africa, are otherwise an Ethiopian group; while there is also a West African representative of their cousins the linsangs, the other forms being Indo-Malayan. Of palm-civets there is one exclusively Ethiopian genus; while no less than six genera of mongoose-like Carnivora, among which the elegant little meerkat is the most generally known, are restricted to the region. Remains of both genet-like and mongoose-like carnivores are, however, common in

the middle and upper Tertiary deposits of Europe and India.

That ugly and savage brute the spotted hyæna is a very characteristic Ethiopian type at the present day, although in the Pleistocene or latest division of Tertiary time it was widely spread in Europe and Asia. Allied species abounded in Europe and Asia at a somewhat earlier epoch. Even more characteristically Ethiopian is the small hyæna-like creature known to the Boers, on account of its burrowing habits, as the aard-wolf. It may be regarded as a kind of degenerate hyæna, whose teeth have been reduced to an almost rudimentary condition by feeding largely upon white ants, carrion, and other substances which require little or no rending or mastication.

In striking contrast to the skulking, solitary, and burrowing habits of this species are the boldness and ferocity of another very characteristic South and East African representative of the Carnivora, namely, the hunting-dog, which associates in large packs, and pursues and kills large game. This member of the dog tribe, of which the nearest living allies appear to be the wild dogs of Asia, differs from all the rest of the family in the number of its toes. In the south it is coloured not unlike the spotted hyæna, but in some parts of East Africa it loses the large patches of orange tawny, and becomes chiefly black and white. A lower jaw from a cave in South Wales has been thought to indicate that an allied species was formerly a contemporary of the spotted hyæna in Europe. A second genus of the dog family, likewise confined to South and East Africa, and including only a single species, is represented by the long-eared fox. Possibly an extinct species of the same genus occurs in the upper Tertiary deposits of northern India. In the weasel family two species remarkable for their conspicuous black and white coloration, namely, the striped polecat or zorille, and the striped weasel, each representing a genus by itself, are very characteristic of Ethiopian Africa, although the former ranges into lower Egypt and possibly also into Asia Minor.

Here it may be well to mention that certain species and genera of Carnivora are common to Africa and India. Perhaps the most noticeable are the hunting-leopard, or

chita, the caracal, or long-tailed red lynx, the jungle-cat, and the two species of ratel, of which one is Indian and the other African. The lion and the leopard likewise come under the same category, but their geographical range is still larger.

Very brief mention must suffice for the generic types of rodent or gnawing mammals peculiar to the region under consideration. Perhaps the most noteworthy of these are the so-called scaly-tailed squirrels, better known, since they have no near affinity with the true squirrels, simply as scaly-tails. There are three generic types of these remarkable rodents, two of which are provided with flying-membranes comparable to those of the flying-squirrels, while the third is devoid of these appendages, and thus, save for the distinctive scales beneath the tail, much resembles an ordinary squirrel. Scaly-tails, which constitute a family by themselves, take their name from the presence of a few large horny scales on the under surface of the base of the tail, apparently used as aids in climbing. They are exclusively confined to the tropical forest zone, and are most abundant on the west coast, where alone representatives of two of the genera are known to occur. Dormice are very common in Ethiopia, where there is at least one generic type unknown elsewhere. Rats and mice belonging to exclusively Ethiopian types are likewise numerous, but to refer to these *seriatim* would obviously be quite out of place on the present occasion, especially as nothing is known with regard to their palæontological history. An exception may, however, be made in the case of the great Gambian pouched rat *Saccostomus*, and likewise in that of the long-haired crested rat *Lophiomyys*, of north-eastern Africa, both of which represent genera unknown beyond the limits of the Ethiopian region. The tree-mice and the veldt-rats are the types of two peculiar African sub-families of the mouse tribe, namely, the *Dendromyinae* and *Otomyinae*.

Very characteristic, too, of the Ethiopian region are four or five generic types of the burrowing and frequently blind mole-rats, of which the typical genus *Spalax* is East European and Egyptian. Of the four or five exclusively Ethiopian genera, *Bathyergus* is represented by the great sand-mole of the Cape and a smaller form from

Damaraland, the two allied genera having species of about the same size as the latter. Most remarkable of all are, however, the tiny naked sand-rats of Somaliland, which live in tunnels excavated in the burning sand of the desert. Another Ethiopian representative of the same family is much more nearly allied to the Oriental bamboo-rats, with which, indeed, it is sometimes grouped, although naturalists are now disposed to refer it to a genus apart. The curious spring-haas or jumping-hare of the South African veldt indicates a family of rodents (*Pedetidae*) quite unknown elsewhere; and it is much to be regretted that we are still unacquainted with the past history of this interesting form.

Very noteworthy, from a distributional point of view, are the large rodents known as cane-rats (*Thryonomys*), together with their smaller relatives the rock-rats (*Petromys*), and the Somali gundi (*Pectinator*); since all these, together with the true gundi (*Ctenodactylus*) of North Africa, belong to a family represented—outside Africa—only in South and Central America, where they display many modifications, all generically distinct from their Ethiopian cousins. There is, however, one extinct genus of the group in the Pliocene or upper Tertiary of Sicily.

Short as it is, the above outline is sufficient to indicate the clearly marked peculiarity of the rodent fauna of Ethiopia; but, owing to our lack of knowledge of its past history, we are unfortunately unable to draw many deductions of value in regard to its origin and relationships.

A very different state of affairs occurs when we come to take into consideration the larger ungulates, or hoofed mammals, of which Ethiopian Africa possesses a large number of absolutely peculiar types. Taking first the *Giraffidae*, as represented by the giraffes and the okapi, we find this family absolutely restricted at the present day to the Ethiopian region. The giraffe family, it may be observed, appears to be nearly related to the deer tribe, from which it is broadly distinguished by the structure of the horns. These are always covered with skin, and are never branched. In the giraffes there are at least three pairs of these appendages, one (which may be reduced to a mere rudimentary boss) situated in the middle line of

the forehead, and a pair somewhat farther back. The paired horns, at any rate, are present in both sexes, although much smaller in the females than in the males. From their narrow ears giraffes are evidently adapted to live in open country, or, at all events, in such covert as leaves their heads and necks exposed. On the other hand, the great spreading ears of the okapi proclaim with equal clearness that their owner is a forest animal.* So far as can be ascertained, the male okapi is always provided with a single pair of horns, of some five or six inches in length (fig. 2), while the female is generally hornless, although, as in the case of the American

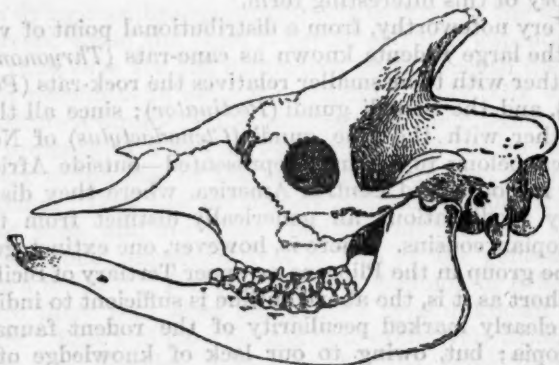


FIG. 2.—SKULL OF MALE OKAPI.

(After C. I. Forsyth-Major.)

prongbuck, small horns may occasionally be developed in that sex. Sir Harry Johnston is commonly credited with being the discoverer of the okapi, and he was certainly the first to make the entire creature known to European science. It appears probable, however, that a piece of striped skin obtained some twenty years earlier by the German explorer, Dr Junker, and supposed at the time to belong to the zebra-antelope, really pertained to a young okapi, and was thus the first evidence of that animal brought to Europe.

* The absurd idea that the okapi is a hybrid between a giraffe and a zebra still appears to be current. Apart from the fact that hybrids between such widely different animals do not occur in nature, the okapi is essentially a giraffe in structure, and fully a dozen specimens are known.

Both giraffes and okapis are characterised by the peculiar roughness of the enamel of their teeth, the structure of which recalls the skin of the large black slug. They are further distinguished by the circumstance that the outermost of the four lower pairs of front teeth—corresponding to the canines of other mammals—have divided or lobate crowns, probably for the purpose of assisting in the combing process in which these animals strip the leaves from a bough.

As regards the past history of the group, it may be noted that remains of extinct giraffes occur in the Pliocene deposits of Greece, Persia, northern India and China, so that these animals were widely distributed during the Pliocene division of Tertiary time in Asia. Moreover, some of these extinct forms seem to have had shorter limbs than their modern relatives, thus pointing to their being generalised ancestral types. Okapi-like ruminants (*Tragoceros* or *Samotherium*) are also known from the Pliocene beds of Greece, Samos, China, etc., in which, as in their existing representative, the males were horned and the females hornless. Nor is this all; for there was also a large number of allied ruminants of gigantic proportions, such as *Sivatherium* and *Helladotherium*, distributed over southern Europe, Asia, and North Africa. But, if we except one doubtful tooth from a superficial formation, not a vestige of any one of these creatures has hitherto been detected in a fossil state in Ethiopian Africa or Egypt.

Giraffes and okapis form but a small group; and by far the most numerous of the existing ruminants of Africa south of the Sahara are the various kinds of antelopes, all of which, with the exception of the true gazelles, belong to groups or genera now unknown beyond the limits of the Ethiopian region, save for a few inhabiting the northern part of the continent, Syria, etc. Among the larger forms may first be mentioned the hartebeests and their relatives the blesbok and bontebok. Remains of some members of this group have been found in the superficial or Pleistocene beds of Egypt, but not in lower strata; extinct forms occur, however, in the Indian Pliocene. Of the palaeontological history of their near relatives the gnus, nothing whatever is known. Passing by numerous smaller forms,

such as the dik-diks, oribis, klipspringers, duikers, etc., of which the past history is likewise a blank, we come to the waterbucks and their smaller relatives the kob, all of which are exclusively confined to Ethiopian Africa. Here, however, we are confronted with the noteworthy fact that remains of apparently generically identical antelopes occur in the Siwalik Hills of northern India. The sable and roan antelopes, together with their near relatives the addax and the various kinds of oryx, form another characteristic group of Ethiopian antelopes, some of which range, however, into northern Africa and Syria. The roan antelope occurs in fossil form in the superficial deposits of Egypt, while an extinct member of the same group has been recorded from the Pliocene Siwaliks of India. Moreover, an extinct generic type of oryx is met with in the equivalent deposits of Greece. More significant still is the occurrence of remains referred to an addax in the superficial deposits of China; such remains, in common with those of numerous other mammals, having been obtained in the druggists' shops at Shanghai, where they are sold as medicines.

Among the largest and handsomest of all African antelopes are the lordly elands, the brilliantly coloured bongo of the equatorial forest tract, the graceful and more widely distributed kudu, and the equally elegant but more numerous bushbucks, inclusive of the water-loving sitatunga. All these are strictly Ethiopian forms; but it is noteworthy that they have a near, although less specialised, relative in the Indian nilgai. When we enquire into the past history of this group we find that extinct nilgais occur in India and China, where various types of kudu, eland, and, perhaps, bushbucks, are likewise met with; while elands are found in a fossil state in the Pliocene of Greece, and not improbably also in that of India. The full significance of these facts will be noticed later.

Of the little water-chevrotain of West Africa, which represents a genus by itself, with extinct forms in the Pliocene of Europe, it must suffice to mention that its nearest living allies are the true chevrotains or mouse-deer of south-eastern Asia, which also date from the Pliocene epoch, and have nothing to do with true deer.

Although the common hippopotamus and its pigmy

relative of *Liberia* are now both confined to Ethiopian Africa, the former was once widely distributed over Europe, while in the superficial deposits of the Mediterranean islands there occur quantities of remains of species more or less closely related to the latter. The earliest known representatives of the group are found, however, in the Pliocene of northern India and Burma; and, as these belong to generalised and ancestral types, while no such fossils are at present known from Ethiopian Africa, the presumption is that the group is of northern



FIG. 3.—HEAD OF MALE WART-HOG.

origin. As to the pigs, it must suffice to say, in the first place, that the hideous wart-hogs (fig. 3), now exclusively Ethiopian, appear to exhibit some signs of relationship with certain Indian fossil swine. And, secondly, that the bush-pigs (*bosch-varks*)—an equally characteristic Ethiopian and Malagasy group—are almost undoubtedly akin to certain extinct pigs from the Pliocene of Europe and Asia.

Highly characteristic of Ethiopian Africa are the various species of zebra and quagga, as well as the typical wild asses. Unfortunately, palæontology is silent as to their past history, not from the lack of fossil remains of

Equidæ, but for the reason that, with the exception of the true horse (which is readily distinguished by the great breadth of the fore hoof-bones), the teeth and bones of most of the existing members of the horse tribe are so alike that, save in the matter of size, it is almost, if not quite, impossible to distinguish one species or, at all events, one group from another in the fossil state. Nevertheless it is quite probable that some of the extinct Asiatic *Equidæ* were really zebras.

More satisfactory is the evidence afforded by the rhinoceroses. Africa, south of the Sahara, is now the home of two species of these monsters, namely, the white, or Burchell's, rhinoceros, formerly abundant in Cape Colony and the adjacent districts, and still surviving in an isolated tract on the equator in the neighbourhood of Lado, and the much more widely spread black or common rhinoceros. These species agree in possessing two horns, as well as in the absence of folds in the skin, and in the lack of front teeth when adult. In the two latter respects they differ markedly from the living Asiatic rhinoceroses, one of which is two-horned, while the two others have only single horns. A fossil rhinoceros closely akin to the black species has, however, left its remains in the Pliocene Tertiary of Greece; while some of the extinct species from the Asiatic and European Pliocene and Pleistocene deposits are also more or less nearly akin. On the other hand, the great extinct woolly rhinoceros of Europe, Siberia, and North China, whose frozen carcasses, like those of one of the other species, are occasionally met with in the 'cold storage' of the Siberian tundras, appears to have been very closely related to the white species. No traces of rhinoceros-like creatures have hitherto been detected in the early Tertiary deposits of Egypt, although such are common in the equivalent formations of Europe and North America.

A decidedly different story is told by the hyraces, which, as already said, form a distinct sub-order of ungulates, and are chiefly Ethiopian, although one species ranges into Syria. All the existing species are small creatures, comparable in size to a rabbit, some being terrestrial and others arboreal. Many of the fossil forms indicate, however, comparatively large animals, of the

size of a tapir, or even greater. Extinct members of this group occur in the Pliocene of Greece, Samos, and other parts of Europe, but not, so far as I know, in the central or northern part of that continent, or in Asia. On the other hand, fossil hyraces (not yet fully described) are met with in the Eocene deposits of Egypt in company with the remains of ancestral Proboscidea. Moreover, there seem to be decided indications of affinity between the hyraces and a number of extinct South American mammals more or less closely related to the gigantic *Toxodon* of the superficial deposits of Argentina. In the hyraces, then, we seem to have struck, for the first time, a group of mammals whose ancestral home, so far as the evidence at present available goes, appears to have been in the southern hemisphere.

The case of the elephants and their extinct fore-runners demands somewhat fuller discussion than has been accorded to any of the preceding groups. It is hardly necessary to state that Ethiopian Africa at the present day is the home of a single species of the group, which differs markedly from its only living cousin, the Asiatic elephant, not only in external bodily form and the structure of the trunk, but likewise in the conformation of its grinders or cheek-teeth, these latter being of a much more generalised type than are those of the Asiatic species. Fossil remains of the existing African species are met with in the superficial formations of Egypt, Algeria, Spain, and Sicily. Moreover, the dwarf elephants, the remains of which are met with in enormous quantities in the caverns and fissures of Malta, Cyprus, and Sicily, were evidently nearly related to the African species, even if they be more than local races, thus indicating that in early days the African type had a more northerly range. Again, some of the Pleistocene elephants of Europe seem to indicate a transition between the African and Asiatic types of Proboscidea—a transition which is rendered practically complete when we reach the Pliocene Siwalik formation of northern India. More important still is the fact that, in the last-named formation, as well as in corresponding beds in Java, China, and Central Asia, we meet with remains of a group of Proboscidea, the so-called stegodons or ridge-toothed elephants, which, in the structure of their cheek-teeth, imply an imper-

ceptible passage from the modern elephants on the one hand to their generalised extinct forerunners, the mastodons, on the other. As these transitional or mastodon-like elephants are met with only in the aforesaid districts of Asia, the available evidence (and we have no right to go behind this) points unmistakably to the conclusion that the evolution of the modern elephants took place in eastern Asia.

The mastodons, on the other hand, have a very wide distribution, including both North and South America, as well as Europe and Asia; and one of their most generalised representatives occurs in the Pliocene deposits of Egypt. Now comes the important and interesting evidence afforded by the recent discoveries in the Eocene beds of the Fayum district. Before those discoveries, our knowledge of the ancestry of the Proboscidea came to an abrupt conclusion with the aforesaid generalised mastodon, which, by the way, differed from the later and more specialised types by the presence of a pair of tusks in the upper as well as in the lower jaw. From this generalised mastodon, commonly known as *Mastodon angustidens*, but regarded by some as the typical representative of another genus, there is a complete gradation through the pigmy mastodon, *Palæomastodon*, of the Egyptian Eocene, to *Mærittherium* of the same formation. The latter (fig. 4) was a very generalised type of proboscidean, with a full series of front teeth, and the cheek-teeth small in size and all in use at the same time, thus departing almost as widely as possible from the Proboscidea as we now know them. Nevertheless, the modern proboscidean type of dentition is foreshadowed, not only in the form and structure of the teeth, but by the enlargement of the second pair of incisors in each jaw—an enlargement which became more and more conspicuous in each succeeding member of the series till it culminated in the mastodons by the loss of all the front teeth save the two large pairs of tusks; while, as a final development, the upper pair of these was lost in the elephants, with a concomitant increase in the size of the lower ones. *Mærittherium*, then, although displaying distinctly proboscidean affinities, was an extremely generalised type of ungulate, not far removed from certain other early forms. Together with *Palæomastodon*, it serves to

demonstrate, so far as present evidence goes, that the mastodons originated in north-eastern Africa.

There is, however, another strange ungulate from the Fayum Eocene which is of not less importance from the present point of view. To this strange monster its discoverer (who was of opinion that it was related to the rhinoceroses) has given the name *Arsinoetherium*, derived from the goddess Arsinoë. The skull of this animal, which measures approximately a yard in length, is characterised by the presence of a huge pair of horns

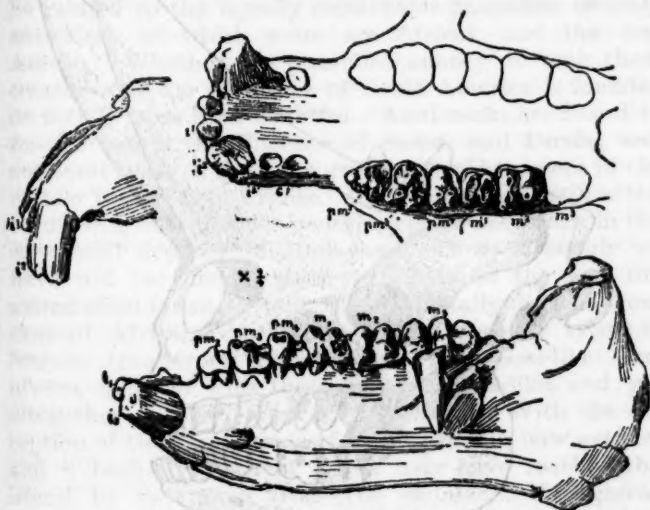


FIG. 4.—DENTITION OF *ARSINOTHERIUM LYONSI*.

i, incisors; c, canine; pm, premolars; m, molars.

on the nose, followed by a rudimentary pair at the hinder end of their bases (fig. 5). To support the weight of these great horns the nasal region of the skull is connected by a bridge of bone with the front of the upper jaw. An important feature of the genus is the uniform series formed by the teeth, which show no gaps, and have the canines no taller than the rest of the series, thus not forming tusks. This feature, it may be observed, is a specialised one, which may perhaps be accounted for by the heavy armament of horns rendering tusks unnecessary.

The osteology of the rest of the skeleton of this monster is not yet fully worked out, but it is quite likely that the genus will eventually prove to be distantly related to the Proboscidea, and more intimately to the primitive Eocene group of ungulates known as Amblypoda,* of which the typical genus *Coryphodon* is common



FIG. 5. SKULL OF ARSINOETHERIUM ZITTELI (length, 3 feet).

(This and fig. 1 are reproduced, by permission, from the Guide to the Natural History Museum.)

to the lower Eocene of Europe and North America, while the more specialised Uintatheres (frequently known as Dinocerata) are restricted to the upper Eocene of the latter continent. Although the Uintatheres have long horn-like protuberances on the skull, they retain tusk-like canines, while these teeth are also well developed in *Coryphodon*. Evidently, then, both groups are more generalised than *Arsinoetherium*, to which the latter may

* I am indebted to Dr Andrews for this information.

be ancestral. It may be added that the Amblypoda resemble the Proboscidea in having the bones of the different segments of the limbs placed almost vertically one above the other.

This cursory review of the mammals of Ethiopian Africa may be brought to a close by a brief reference to the strange creatures properly denominated aard-varks, but often termed by sportsmen and travellers ant-bears. Although utterly unlike any other living mammals, it is generally considered that these strange animals may be related to the equally remarkable pangolins or scaly ant-eaters, of which some are African and the rest Asiatic. Whether the presumed affinity of both these creatures to the edentates of South America is founded on fact, is more than doubtful. Aard-varks are found in fossil form in the Pliocene of Samos and Persia; and ancestral types of the same group are said to occur in the middle Tertiaries of France. More remarkable still is the occurrence of an extinct generic type of aard-vark in the superficial deposits of Madagascar. For, although we have not yet had occasion to allude to the fact, the mammalian fauna of that island is totally distinct from that of Africa, consisting chiefly of peculiar types of lemurs, Insectivora, rodents, and mungoose-like Carnivora, together with the somewhat civet-like, and yet altogether peculiar, fossa (*Cryptoprocta*). With the exception of two small kinds of hippopotamus, now extinct, and a bush-pig, both of which may have reached the island by swimming from the mainland, Madagascar possesses none of the large African mammals—a fact which may be taken as indicative of the great length of time during which it has been isolated. This being so, the occurrence of fossil aard-varks in Madagascar proves these animals to be very ancient inhabitants of Africa.

It may be added that this remarkable distinctness of the mammalian fauna of Madagascar from that of the mainland induced Mr Blanford to regard that island as representing a zoological province apart from the Ethiopian region, in which it had previously been included. I feel convinced that this is the right way of looking at the matter, in spite of the fact that, in a paper on the distribution of certain groups of spiders, Mr R. I. Pocock has seen reason to revert to the older view.

We are now in a position to discuss the bearings of the foregoing facts on the past history of the mammalian fauna of Ethiopian Africa.

Writing so long ago as 1868, when the information on the subject was far more incomplete than is now the case, Mr Huxley, in the paper standing first in our list, made the following remarkable statement:—

‘The existence of these western annectent groups, now in many cases confined to the southern parts of the New and Old Worlds, and separated by thousands of miles of sea, is utterly unintelligible and inexplicable without the aid of palæontology, which demonstrates that, in the earlier part of the tertiary epoch, western and northern Arctogæa, from Nebraska through central Europe to the Siwalik Hills, was inhabited by a fauna which, so far as mammals are concerned, was competent to supply Africa and India with their apes, their Ungulata, their Carnivora, and to furnish Austro-Columbia [South and Central America] with the Proboscidea, horses, and *Machairodus*, which it once possessed, and with its existing Tapirs and Cameline and Marsupial quadrupeds.’

The same author subsequently took into consideration the possibility that certain types of birds, now mainly characteristic of the southern hemisphere, might have had a southern origin. He concluded, however, as follows:—

‘The distribution of *Psittacula*, for instance, is quite unintelligible to me upon any other supposition than that this genus existed in the miocene epoch, or earlier, in Northern Arctogæa, and has thence spread into Austro-Columbia, South Africa, India, and the Papuan islands, where it is now found.’

This theory of the immigration—or ‘radiation,’ as it is now the fashion to call it—of northern forms into Africa during the Pliocene epoch was more fully developed by Mr A. R. Wallace, and in this shape was accepted by Mr W. T. Blanford in the address referred to above. Briefly stated, this hypothesis is as follows. During the whole of the latter portion of the Tertiary epoch the Sahara desert (not, as once supposed, in the form of a sea) formed an effectual barrier to the migration of the great majority of terrestrial mammals between Ethiopian and northern Africa, the latter of which

appears at this time to have been connected by land with Europe. At a comparatively early, although unknown, date in the Tertiary period the ancestors of the existing mammalian fauna of Madagascar, such as lemurs, Insectivora, civet-like creatures, the fossa, and, I may add, aardvarks, effected an entrance from the north, probably along the eastern side of the continent, into Ethiopia, which was at that time united with the great island on the east coast. At a later date Madagascar, which may also at the same epoch have been in connexion with India by way of the Comoro and Seychelle islands, became insulated, and was thus prevented from receiving any of the subsequent Pliocene immigrants into Ethiopia, with the exception of a bush-pig and two hippopotami, which, as already mentioned, may have reached the island by swimming across the intervening channel.

During the second, or Pliocene, invasion of Ethiopia from the northward, all or, at any rate, most of the more specialised and larger types of mammals, such as apes and monkeys,* giraffes, okapis, and antelopes, wart-hogs, bush-pigs, and hippopotami, zebras, asses, and rhinoceroses, elephants and hyraces, together with ostriches, obtained for the first time an entry into the central and southern districts of the great continent. Finding the country unoccupied by large animals of their own type, and at the same time eminently suited to their own special requirements, the strangers rapidly developed in their new home to an almost unprecedented extent, with the result that, in the course of ages, there arose the wonderful Ethiopian mammal fauna as it was presented to us in the early days of European exploration and sport in the Dark Continent. Many new generic types of large mammals were, indeed, probably evolved *de novo* in the Ethiopian area, although a large proportion of those now found there were originally represented in their presumed ancestral northern home, where a large percentage of what we now rightly regard as exclusively Ethiopian types appears to have soon afterwards died out. Several of these existing genera are, as already indicated, represented in the Pliocene of Greece, but others seem

* The recent discovery in Madagascar of an animal apparently intermediate between lemurs and monkeys presents a certain difficulty with regard to the date of immigration of the latter group.

to have been restricted at that epoch to Samos, Persia, India, China, etc.; and it may therefore be assumed that their southern migration was by way of Syria or Arabia. It is true Mr Wallace was of opinion that a part of this migration took place to the westward of Tunis, elephants and rhinoceroses being among the forms that effected an entrance by this supposed western route. But elephants are wanting in the Grecian and Persian deposits, whereas they abound in those of India, the Malay countries, and China. Moreover, as mentioned above, remains of the African elephant have recently been discovered in the superficial deposits of Egypt. The evidence is therefore distinctly in favour of this migration (if it ever took place at all) having passed along an easterly route.

Till 1900 this hypothesis of southward migrations of the original mammalian fauna of Europe and Asia into Africa was very generally accepted by zoologists. In that year, however, the well-known American palæontologist, Professor H. F. Osborn, started the theory that Ethiopian Africa, instead of having drawn its mammalian fauna from Europe and Asia, had itself acted as a great centre of development, and subsequently of dispersal or radiation. In other words, the admitted resemblance between the Ethiopian fauna and that of southern Europe and south-western Asia (especially during Tertiary times) may be best explained by an invasion, or a series of migrations, from south to north, coupled with the extension of the Ethiopian climate and flora during the middle Tertiary. In this connexion it may be well to let Professor Osborn summarise his view in his own words. After referring to the occurrence of at least three such invasions from Africa northwards which are presumed to have taken place, he concludes as follows:—

‘It thus appears that the Proboscidea, Hyracoidea, certain Edentata [aard-varks and pangolins], the antelopes, the giraffes, the hippopotami, the most specialised ruminants, and among the rodents, the anomalures [scaly-tails], the dormice, the jerboas, and among monkeys, the baboons, may have enjoyed their original adaptive radiation in Africa; that they survived after the glacial period only in the Oriental or Indo-Malayan region; and that this accounts for the marked community of fauna between this region and the Ethiopian.’

Although the latter part of the passage is not quite clear (seeing that most of the essentially African types are unknown out of Ethiopia after the Pliocene), the general meaning is plain enough. Between the publication of the first and second papers by Professor Osborn in the foregoing list, the first discoveries of fossil mammals in the Fayum district were made; and it is stated in the second communication that these discoveries lend support to the new theory. So far as the Proboscidea and Hyracoidea are concerned, this may be frankly admitted; and it may be added that in this respect Professor Osborn has been almost prophetic.

Even then, however, there is a strong *prima facie* presumption that these ancestral Fayum Proboscidea may themselves have sprung from a northern stock which reached Africa at a very remote epoch. For if *Arsinoetherium* be allied to *Coryphodon*, which may itself have been close to the ancestral stock of the Proboscidea, this stock must have been of northern origin. In other words, *Coryphodon* is evidently a very generalised ungulate; and if (as is almost certainly the case) all ungulates are derived from a single stock, that stock was in all probability a northern one. At any rate, there is not a tittle of evidence at present to show that it was African. On the contrary, such evidence as is available suggests an early immigration of very primitive Amblypod Ungulata into north-east Africa, where they gave rise to the Proboscidea and Hyracoidea. Probably, however, they never wandered sufficiently far south to reach Madagascar, which then formed a part of the mainland.

Turning for a moment to another aspect of the subject, it may be observed that the occurrence of ancestral forms of hyrax in the Fayum Eocene lends support to the view I have elsewhere expressed* that the peculiar types of ungulates characteristic of the middle Tertiary formations of Patagonia, some of which appear to be allied to the Hyracoidea, may have reached their American habitat, in company with the groups of rodents common to Africa and South America, by a land route across the Atlantic.

To revert to the consideration of the history of the

* See 'South American Animals,' 'Quarterly Review,' January 1903.

Proboscidea, we have seen reason to believe that the earlier forms of that group were evolved in Africa itself, this conclusion being reached from the circumstance that remains of the earliest types are met with there and there only. On the other hand, as regards the later members of the group, the evidence, as I have indicated above, points to an exactly opposite conclusion—that is to say, to the inference that, after the evolution in Africa of the mastodons from the ancestral Proboscidea, the former animals migrated into Asia and there gave rise, first to the stegodons, and then to the true elephants. If this be the true explanation of the facts—and it is difficult to see how it can be controverted—it follows that the modern African elephant must at a later epoch have been an immigrant from the north-east into Ethiopia, the land of its great-grandparents.

But this is by no means all. As already mentioned, the palæontological history of the northern hemisphere shows a yawning gap in the case of the early stages of the Proboscidea and Hyracoidea. In the case of the other groups of ungulates, on the contrary, no such marked gap exists; and we are able to trace, with fair completeness, the evolution of ruminants from pig-like forms, and of horses from small tapir-like creatures. Not a trace of any such evolution is afforded by Africa; and hence it is highly probable that the camels, true ruminants, and horses were evolved in the northern, and not in the southern hemisphere. If this be so, it follows as a matter of course that these animals must have been immigrants into Africa from the north.*

If we enquire what is at present known with regard to the past history of the existing Ethiopian genera of these and other groups, we find that the earliest forms of ostriches, hippopotami, rhinoceroses, probably zebras, giraffes, okapis, kudus, elands, roan-antelopes, oryx, addax, waterbucks, etc., with which we are acquainted

* Since this passage was written, Mr Madison Grant, the Secretary of the New York Zoological Society, has suggested ('Rep. N. York Zool. Soc.' 1903, pp. 22 and 23) that while the *Cervidæ*, or deer, originated in Europe and Asia, the oxen and antelope group (*Bovidæ*) were developed in Ethiopia. Convenient as it would be to account for the absence of the former group in Ethiopian Africa, this theory has at present no palæontological support, while the distribution of sheep is against it.

come from southern Europe and Asia. Consequently, till remains of earlier forms of these groups are found in Africa (and if they were so found an opposite conclusion would by no means certainly follow), the presumption seems still to be all on the side of the Huxleyan hypothesis, namely, that the immediate ancestors of their modern Ethiopian representatives were immigrants—at a much later period than the ancestral Proboscidea and Hyracoidea—from the north and east. This view of the case is strengthened by the absence of practically all the aforesaid types from Madagascar; and the advocates of an autochthonous origin for the modern Ethiopian fauna have to show how, on their hypothesis, its ancestors failed to obtain an entrance into that island while it still formed part of the continent.

There is, however, yet another argument in favour of the Asiatic origin of the modern Ethiopian ungulate fauna. As we have seen, kudus, elands, and bushbucks (or 'harnessed' antelopes) are near relatives of the nilgai; and remains of extinct species of both groups are known from the Tertiaries of India and China, where those of nilgai have hitherto alone been discovered. On the hypothesis that Africa was the great centre of development and radiation for the antelopes, it is necessary to assume that all these animals (together with many others mentioned above) were new arrivals in Asia in the Pliocene epoch; and that, soon after they arrived there, they all died out with the exception of the nilgai, which, although an apparently primitive type, must have been a new development in that continent. This, it need scarcely be said, is absolutely opposed to all that we know in regard to the history of groups of animals when they reach a new country, where they appear, if conditions are favourable, to start on a fresh course of development, and at the same time tend to die out in their old habitat.

On the other hand, if we regard the aforesaid ruminants (with the exception of the nilgai, which appears to have stayed behind in the ancestral home) and other animals as immigrants, during the Pliocene age, from Asia into Ethiopian Africa, we find them developing, as we should expect, to a marvellous extent in the new land, and gradually dying out in their original habitat,

where the country, from some cause or other, may have become unsuited to their existence. For not only is it conceivable, but it is highly probable that, as pastures (even of large extent) become in course of time unsuited to the rearing and maintenance of blood-horses, so entire countries in the course of ages may become unfitted for the existence of the large mammals they have hitherto nourished.

Special importance must, I think, be attached to the case of the Indian nilgai; for, on the hypothesis of an African radiation, there could scarcely have been time for the development of this new type in Asia during the Pliocene, in deposits of which age its remains occur over a large area in that continent. Moreover, as already said, it is apparently a primitive type, and therefore ought to be at least as old as the elands, kudus, and bushbucks—as, indeed, it is on the hypothesis of an Asiatic origin for the whole group.

The scope of this article might be further extended so as to include a discussion of the reason why deer, bears, true swine, and tapirs have always been unrepresented in the Ethiopian fauna. It may be mentioned, by the way, that both ancestral antelopes and ancestral deer are met with in the middle Tertiary deposits of Europe, which is a fact fully in accord with the theory of a migration from Asia to Africa, but very difficult to reconcile with a migration in the opposite direction. We might also take into consideration the extraordinary difference between the Malagasy and the Ethiopian mammalia, and the modes by which this has been brought about. Such discussions would, however, necessarily occupy much space, and would, moreover, to a great extent tend to divert attention from the main issue raised in this article, namely, whether the Huxleyan hypothesis as to the origin of the Ethiopian fauna is true or false.

With certain modifications rendered necessary by the new palæontological discoveries in Egypt, this hypothesis, it may be submitted, not only remains unshaken, but is actually strengthened by the evidence afforded by recent investigations into the past history of the mammalian fauna of the northern half of the eastern hemisphere. At any rate, I venture to think, the onus of demonstrating the falseness of this theory rests entirely with those who

would have us believe that the Dark Continent was the birthplace and the centre of dispersal not only of the majority of the modern larger mammals of the Old World, but likewise of many of those of the western hemisphere.

The question will probably be asked by readers of this article whether there is any trustworthy text-book in which they could find fuller descriptions of the wonderful extinct mammals to which I have had occasion to allude. To this I must reply that, owing to the comparatively recent date at which the extinct Eocene mammals of Upper Egypt were discovered, there is no work of this nature in which they are noticed; and reference must accordingly be made to the original memoirs in which they are described, three of which are quoted in the list at the commencement of the article.

The work standing second in our list is, in the main, a translation of the late Professor Karl von Zittel's invaluable 'Grundzüge der Palæontologie,' which is an abbreviation of the equally well-known 'Handbuch' by the same author. The translation and editing of the English edition have been undertaken by the well-known American palæontologist Dr C. R. Eastman, with the assistance of the author and a number of specialists.

As we learn in the preface to the first volume, it was at first intended to bring out a literal translation of the original work. But palæontology is a constantly progressive science; and, as it was doubtless found that many portions of the original work were more or less out of date, it was resolved, with the assent of Professor Zittel, that a large portion of the translation of the first volume (which is devoted to the invertebrates) should be remodelled, enlarged, and brought as nearly as possible up to date. As a matter of fact, only the chapters on the Protozoa and Coelenterata have been left in anything like their original condition; while those on the Molluscoidea, Mollusca, and trilobites have been entirely rewritten.

As being somewhat more akin to the subject of the present article, a rather fuller notice may be given of the second volume, which includes all the vertebrates with the exception of mammals. In this volume we are told in the preface that, while the translation has been carried

out on the same general plan as in its predecessor, with considerable enlargement where necessary, yet, on the whole, the original text has been more closely followed, the classification departing only in a few minor particulars from that adopted in the 'Grundzüge.' Indeed, the chapters on fishes and amphibians are almost in the nature of a literal translation; and it is only in the sections treating of reptiles and birds that we encounter, and then only in places, a marked departure from the original text. In this more conservative spirit we are sure the editor has been well advised.

In securing the services of Dr Smith Woodward of the British Museum, the most eminent authority on the fossil members of that group, for the revision of the fishes, the editor has been specially fortunate. As an example of the manner in which Dr Woodward has discharged his task, we may cite the case of the so-called Palæozoic lamprey, which is left practically as *incertæ sedis*; the wisdom of this being demonstrated by the result of recent investigations.

The amphibian section was revised by Dr E. C. Case, a well-known American authority, who also assisted in the translation of the chapters devoted to the reptiles. In connexion with the latter, the editor deplores the untimely death of the late Professor G. Baur. His place has, however, been filled, so far as possible, by Messrs Hatcher, Osborn, and Williston, whose names are a sufficient guarantee for the manner in which their portions of the great task has been carried out. Birds fell to the lot of Mr F. A. Lucas.

While we cannot refrain from deploring the great changes from the plan of the original made in the first volume, we shall be only expressing the opinion of all palæontologists in emphasising the value and importance of this English edition of the most famous palæontological work that has ever been published. And we shall look forward to welcoming the third and final volume of what must long remain one of the most valuable textbooks of its kind in our language.

R. LYDEKKER.

Art. VIII.—THE COMING PRESIDENTIAL ELECTION IN THE UNITED STATES.

1. *Addresses and Presidential Messages of Theodore Roosevelt, 1902-4.* With an introduction by H. C. Lodge. New York: Putnam, 1904.
2. *Greater America.* By A. R. Colquhoun. New York: Harper, 1904.
3. *Organised Labour.* By John Mitchell. Philadelphia: American Book and Bible House, 1903.
4. *The Social Unrest.* By J. G. Brooks. New York: Macmillan, 1903.
5. *Protection in the United States.* By A. M. Low. London: King, 1904.

IN the Presidential campaign the Republicans have the prestige of office and the advantage of unified organisation. Such disagreements in regard to policy as may exist have, for the present, been settled behind closed doors. They claim that their tenure of power has conferred upon the country at home a new policy in regard to the preservation and reclamation of public lands, more effective regulation of the trusts, and reorganisation of the army and of the militia; abroad, the settlement of the Alaskan boundary dispute, the strengthening of the Monroe doctrine, the establishment of the Cuban Republic, the establishment of civil government in the Philippines, arrangements for an isthmian canal, and successful policy in regard to China.

As for the Democrats, it was eight years ago that their Radical western wing captured the party organisation; and in a fit of frenzied enthusiasm the Democrats declared for free silver. Ever since that time the Democratic leaders, who, for the most part, took up the silver cry simply as a political expedient, have, in their desire for office, endeavoured to shelve this issue. Now the Democratic leaders desire such a reconstruction as will unite the Democrats of the south and west with the Conservative element of the north and east.

Ex-Senator Hill, who stands for political expediency rather than for political principles, has, in the management of the campaign which led to the nomination of Mr Parker, endeavoured to avoid anything which might

cause friction. The platform of the New York Democratic Convention contained no reference to the money question. In the National Convention it was contended, almost in the same breath, that the credit of settling the money question pertained to a Democratic president who had forced through the renewal of the Sherman Law, and that the money question had been set at rest by the act of God in increasing the money supply. Even the vaguely worded statement that the increase in the money supply had removed the matter from the arena of political controversy was considered dangerous to political harmony; and so, finally, all reference to the matter was omitted from the platform, on the ground that it was not an issue in the campaign. While the statement of Mr Parker, after his nomination, that he regarded the gold standard as firmly established, and would act accordingly if elected, makes clear his own position and strengthens him with the eastern wing of the party, the object throughout was, as Mr Williams, the Democratic leader in the House of Representatives, said, to make 'a platform, so far as the monetary standard was concerned, upon which William J. Bryan could have stood, upon which Grover Cleveland could have stood.'

But the real question for the Democrats was how to win. Therefore, compromise on compromise is the history of the Democratic platform. The money question was dropped in order to hold the western wing. The income-tax proposition was dropped to hold the eastern wing. Mr Bryan, who, apparently unaware of his failing hold on the Democratic organisation, had opposed the choice of Mr Parker on the ground that the platform on which his name was brought forward by the New York Democrats would prevent his nomination unless the Democratic party decided 'to attempt a confidence game on the public,' found the necessities of party regulation superior to his publicly expressed opinion.

In the campaign of 1900 the Democrats alleged that Imperialism was the 'paramount issue'; and they were defeated. But the action of Bryan in forcing a free silver plank into the platform prevented the electorate from giving a clear expression of opinion on the question of Imperialism. In the present campaign the Democrats have again taken a stand against Imperialism. They

endeavour to distinguish between the Imperialism which aims at the acquisition of non-contiguous territory 'incapable of being governed upon American laws, under the American constitution,' and Expansion which aims at obtaining contiguous territory capable of being organised as states. But this is a distinction which the popular mind does not make. The silence of the Democratic platform of New York on this question showed a belief, on the part of the astute politicians who framed it, that a campaign on this issue would not be popular. In fact, so far as the eastern states are concerned, there is no widespread objection to the present status of the Philippines. Apart from the trans-Mississippi West, the other sections of the country are on the whole favourable to this phase of Republican foreign policy. The grounds upon which support is given vary. Some believe in Imperialism because of the opportunities for commercial expansion that it is assumed to give; others welcome anything which will increase the foreign prestige of the United States; there are others again, who desiring the ultimate independence of the Philippines, feel that a steadfast pursuit of the present policy is necessary to that end.

In the Philippines the Republicans have been feeling their way. The tariff policy which has been applied is anomalous. Sufficient attention has not been paid to the colonial experiences of other nations. In this respect also, as Bagehot said, the United States tries over again the old experiments. As Mr Colquhoun points out in his excellent work on 'Greater America' (p. 110), there has been too much dependence on 'American civilisation,' and too much reference to general phrases, with an insufficient appreciation, in some quarters, of the difference in governmental aptitude between the Filipinos and the people of the United States. But, for all this, in the short time since the occupation, much has been done to improve the condition of the people. Probably, from the standpoint of selfish trade interest, it would have been better had the United States retained Manila, with a surrounding belt of territory, as a place of trade, leaving the remainder of the country to the Filipinos. But the march of events has prevented this; and now the American people has to face the profitless yet inspiring task of governing and protecting the Filipinos from themselves. The civilising

is more important than the commercial phase of the American occupation. The part which nations of higher civilisation must play in the world's development has for years been clear to President Roosevelt, and has done much to shape policy in the Philippines. In December 1898 he said :—

‘I have scant sympathy with that mock humanitarianism . . . which would prevent the great, free, liberty and order-loving races of the earth doing their duty in the world's waste places, because there must needs be some rough surgery at the outset. . . . I hold that throughout the world every man who strives to be both efficient and moral . . . should realise that it is for the interests of mankind to have the higher supplant the lower life.’

Since the beginning of the nineteenth century the history of the United States has been one of steady accretion of territory. Down to the period of the Civil War, the large acquisitions of territory were made under Democratic administrations. It is true that the territory so acquired was contiguous; but this must rather be ascribed to the fact that there was plenty of contiguous territory still to be acquired, than to any definite ideas in regard to the acquisition of non-contiguous territory. The Democratic contention that only such territory should be annexed as could be erected into states was but little considered when in 1854 Buchanan, Mason, and Soulé issued the Ostend Manifesto, urging that Cuba, with her alien population, should be acquired by force, if necessary; or when, in 1848, President Polk proposed the acquisition of Yucatan.

While the Democrats contend that the Philippines should be left, without delay, to their own resources, the Republicans contend that time is needed. President Roosevelt has already warned the American people that no questions of sentimentalism should cause the Filipinos to be granted a universal suffrage for which they are unfit. The political doctrinairism which, after the Civil War, conferred the suffrage on the negro, destitute of governing aptitudes, has taught its own bitter lesson. The American people, fresh from their own experiences in Democratic government, are still enthusiastic as to the application of their formulas to new conditions. But,

even in their brief experience of non-continental possessions, modifications have crept in. Hawaii and Porto Rico are governed on the Crown Colony system. For the Philippines the ideal of the Republican party is the relationship which exists between Cuba and the United States. Mr Colquhoun has said (p. 60) that 'one of the most pressing problems of Greater America is that of the government of alien races.' This is true; and it is already being appreciated that things must be taken as they are. The Democrats in this matter regard the words of the fathers of the Constitution as the final revelation. The Republicans find that new needs demand new policies. The American people are willing to give time to work out the new experiments.

Until the Spanish-American war, the United States had been for years practically a hermit nation. Foreign policy was not a matter of serious moment. Resolutions on matters pertaining to the internal politics of foreign countries, for example the Irish question, were dealt with in a perfunctory manner when home politics seemed to demand such action. It was considered 'good politics' to drag a too easily hoodwinked ambassador into making statements which could be used in a political campaign. Foreign policies changed as secretaries of state changed; and the tenure of secretaries of state depended on domestic, not on foreign, politics. But the events of 1898 placed the country in a position where, if the nation's prestige is to be preserved, continuity in foreign policy has become necessary. In the development of a saner appreciation of foreign policy, and of its necessary continuity, the Republican party has been peculiarly fortunate in possessing such a Secretary of State as Colonel John Hay, who, even if he has shown—as when he telegraphed to Morocco the message, 'Perdicaris alive, or Raissuli dead'—that he can employ diplomacy in order to gain an immediate party advantage, has certainly manifested distinguished ability at a difficult time. But perhaps the highest credit is due to President Roosevelt. President McKinley, whose training had been that of the American politician interested in domestic politics, showed that he was slowly adjusting himself to changed conditions. Mr Roosevelt's point of view on foreign affairs is wider; and circumstances have

enabled him to impress it on his party. So early as 1899 he said :—

‘We cannot lie huddled within our own borders and avow ourselves merely an assemblage of well-to-do hucksters who care nothing for what happens beyond. Such a policy would defeat even its own end; for, as the nations grow to have ever wider and wider interests, and are brought into closer and closer contact, if we are to hold our own in the struggle for naval and commercial supremacy, we must build up our power without our own borders. We must build the isthmian canal, and we must grasp the points of vantage which will enable us to have our say in deciding the destiny of the oceans of the East and West.’

In the record of foreign policy which the Republican party claims there are undoubtedly actions which savour of the unscrupulous. But these will not weaken the Republicans in this campaign. The Republic of Panama came into existence after a revolution singularly opportune for the fortunes of the isthmian canal. Had the territory in question belonged to some strong European Power, the outcome would have been different. The steps connected with the signing of the treaty show how singularly elastic is international law. Yet, when the Democrats assert that, in so acting, the Republicans

‘violated a statute of the United States as well as plain treaty obligations, international usages, and constitutional law, and have done so under pretence of executing a great public policy which could have been more easily effected lawfully, constitutionally, and with honour,’

this criticism implies no general repudiation of the result. When Senator Gorman endeavoured to unite the Democratic party in opposition to the Panama treaty, he found that the people of the southern states were more desirous of the result than critical of the means.

The increasing importance of the part which foreign policy will play in the United States makes the adherence to the Monroe doctrine professed by both parties a matter of international concern. But the expressions used in the respective platforms with reference to the Monroe doctrine show the party bias. While the Democrats make a general demand for the reduction of both

army and navy, the Republicans urge, as one reason for the increase of the navy, the maintenance of the Monroe doctrine. In the councils of the Democrats the western wing was able to force another compromise, for at first the commercial interests of the eastern Democrats caused them to demand a larger navy. The Monroe doctrine, while it is one of the fixed tenets of American political belief, is one which is much in need of definition. The doctrine which is now put forward is in reality a creation of later years. Calhoun, who was a member of Monroe's cabinet when the declaration was issued, stated subsequently that it was intended simply to apply to the conditions existing at the time of its issue.

'They were but declarations, nothing more; declarations announcing in a friendly manner to the Powers of the world that we should regard certain acts of interposition of the allied Powers as dangerous to our peace and safety. . . . We are not to have quoted to us on every occasion general declarations to which any and every meaning may be attached.'

The Monroe doctrine, then, meant simply that the United States, like any other nation, was free to do what it considered expedient in its own interests. When Seward objected to the French occupation of Mexico, it was national expediency, not the Monroe doctrine, which was invoked. It has remained for President Cleveland, in the Venezuelan matter, and for President Roosevelt to give a new vitality to what was becoming an obsolete abstraction. The addresses delivered by President Roosevelt during the past two years have impressed the public, in an increased degree, with the value of a formula from which the recent world-expansion of the United States has removed all logical foundation.

The part taken by the United States in the international complications which recently arose in Venezuela is appealed to by the Republicans as a vindication of their loyalty to the Monroe doctrine. But there is still unsettled the larger question, What is the relation of the United States, as the exponent of the Monroe doctrine, to foreign Powers? That opportunities for raising difficulties will constantly arise has been recognised by Mr Roosevelt, who has called the South American Republics

'a squabbling multitude of revolution-ridden states.' In discussing the Monroe doctrine in 1896, he said :—

'The United States has not the slightest wish to establish a universal protectorate over other American states, or to become responsible for their misdeeds. If one of them becomes involved in an ordinary quarrel with a European Power, such quarrel must be settled between them by any one of the usual methods.' ('American Ideals,' p. 230.)

The old argument that the establishment of new European possessions in the Americas might endanger the integrity of the United States no longer exists. Under the newer conditions, then, the Monroe doctrine, as at present promulgated, means simply a declaration of the paramountcy of the United States in the Americas. The sympathy which was expressed by the other South American Republics for Columbia in connexion with the Panama affair shows how they appreciate this claim. There is a jarring note of hostility on the part of these countries to the assumed designs of the United States. When the *soi-disant* Republic of Panama gives up its present anomalous position to become in reality part of the United States, this feeling will be intensified.

But it is to questions of domestic policy that most attention in the coming election will be turned. On the money question the Democrats occupy the ignominious position of deserting an issue to which they were attached for two campaigns; and this without any profession of new faith or recantation of old belief. It is true that the Republican leaders, by coquetting with the silver movement when votes could be obtained thereby, did much to make it a political issue; it is true that they took up the gold standard issue in 1896, not from principle, but from expediency. But, in so doing, they ranged themselves with the conservative thought of the country. It may be admitted that in one sense the Democratic contention that the money question is not an issue in the campaign is true. But the Republican party is in no position to take credit for this result.

The points of domestic policy round which discussion will centre—the trusts and the tariff—are closely connected. For a high protective tariff the Republican party has a strong predilection. Its present platform recites that

it replaced a Democratic tariff based on free-trade principles . . . by a protective tariff; and industry, freed from oppression and stimulated by the encouragement of new laws, has expanded to a degree never before known.' Undoubtedly protection has been a potent factor in the development of diversified industries. At the same time there is a large section of the Republican party which regards the present tariff as a finality.

The allegation that the Democrats are the party of free trade is unfounded. It must be remembered that the Wilson Bill, when (in 1894) it passed the Democratic House of Representatives, contained rates of such a nature that, in a country less ardently protectionist than the United States, they would have been regarded as protective in the extreme. There is, it is true, a free-trade element in the Democratic party; but this is much less prominent now than ever before. There is a general acquiescence in the results of protection; and the desire for reform proceeds along the line of revision, not of abolition. Senator Bailey, of Texas, one of the Democratic leaders, said at the recent Convention, 'Free trade is an idle dream under our constitution.' The Democratic platform, as adopted, does indeed 'denounce protection as a robbery of the many to enrich the few,' and favours 'a revision of the tariff by the friends of the masses, and for the common weal.' This traditional phrase is, however, but one more of the compromises made to hold the western wing in line. The declaration as it originally stood, favoured a gradual revision, 'keeping in view existing conditions, however wrongfully, mistakenly, brought about,' and remembering throughout that 'due regard must be paid to actually existing conditions.'

This careful statement recognises not only the general sentiment of the country, but also conditions in the Democratic party itself. In the hitherto 'solid South,' the stronghold of the Democratic party, protectionist sentiment is increasing. The sugar interests of Louisiana, the iron interest of Alabama, the cotton manufacturing interests of Georgia and the Carolinas, are all favourable to protection. In Arkansas, where the transition from the agricultural to the industrial stage is just beginning, the ex-chairman of the Democratic National Committee was defeated in the senatorial campaign of 1902 by a

fellow Democrat, partly owing to the allegation that, when the Wilson Bill was under discussion in the Senate, he had not striven to obtain adequate protection for the lumber interests of his state. The language used in the South with respect to economic policy dates from the time when agricultural interests were dominant in that part of the States. But, whenever southern interests are affected, we observe the anomalous combination of free-trade utterances with a desire for the protection of special interests. The presidential and vice-presidential candidates of the Democrats adopt also a conservative attitude towards tariff revision. This is another compromise. The platform statement pleases the Radicals; the Conservatives look to the candidates.

In the South, however, any hopes of political alignment with the Republican party through a change of attitude towards the tariff question is prevented by the 'race question.' The precipitate grant of the suffrage to the unprepared negro in 1864 was in part attributable to an idealism which saw everything in the light of a formula, in part to a political opportunism which hoped, by means of the enfranchisement, to build up a Republican party in the South. The race question is a political question because the Republican party has made it so. The South is honestly attempting to settle the negro question by education, and by training for good citizenship. Among the Republicans of the South the negroes have no status except at election times. Any one who has lived in the South, and who has become acquainted with southern conditions at first hand, knows that, in the main, the restrictions which the southern states have placed on negro suffrage are justifiable. It is unfortunate, indeed, that the South has had to rectify the political mistake of the North. The Republican party, in its most recent platform, has, with a view to political advantage, inserted a plank calling for congressional intervention in regard to the restrictions placed upon negro suffrage. But behind all political discussion, and outside the realm of political abstraction touching the rights of individuals, there remains the significant fact that there is no section of the Union to-day in which the colour line is not drawn, and in which discrimination in favour of the white is not made.

Among the western supporters of the Republican party, especially in the Central West and the North-west, there is an increasing desire for a revision of the tariff; and in particular a demand for the reduction of duties on articles produced by the trusts. In this movement the state of Iowa has been prominent. Opposed to these are the 'stand patters'—those who, following the advice of the late Senator Hanna, 'stand pat,' and believe in retaining the tariff as it is. Coupled with this movement for revision is that for reciprocity. In the development of his policy of pan-Americanism, James G. Blaine laid great stress upon reciprocity. The matter was, however, given a place in more recent political discussion by President McKinley, who, trained up in the strictest of protectionist schools, showed in his later years a growing appreciation of the changes in industrial policy which industrial expansion inevitably brings in its train. In his address at the Buffalo Exposition, given on the very day on which he was assassinated, he said:—

'Reciprocity is the natural outgrowth of our wonderful industrial development under the domestic policy now firmly established. . . . Reciprocity treaties are in harmony with the spirit of the times; measures of retaliation are not. . . . If perchance some of our tariffs are no longer needed for revenue, or to encourage and protect our industries at home, why should they not be used to extend and promote our markets abroad.'

But the Republican party fears to make any concrete application of the reciprocity idea, lest it should undermine the protectionist structure. It states that it favours commercial reciprocity 'whenever reciprocal arrangements can be effected consistent with the principles of protection, and without injury to American agriculture, American labour, or any American industry.' The Republican majority in the Senate refused to pass the reciprocity treaties which had been negotiated with the approbation of President McKinley. The Republican attitude shows that any detriment, no matter how infinitesimal, to any American industry by a reciprocity agreement is sufficient objection. The Democrats have declared for reciprocity with Canada. While the New England wing of the Republican party, resident in a district whose connexion

with Canadian trade has always been intimate, favours such a suggestion, the Republican party in general holds aloof for fear of endangering protection. It is probable also that the proposal would in practice arouse discontent and opposition in the Democratic party. Already the pine interests of the South feel keenly the competition of the lumber output of Washington and Oregon. A reciprocity agreement with Canada would enable Canadian lumber to compete in southern territory.

In dealing with protection the Republican party has shown more weakness than in any other line of policy. It has declared for such changes as may be necessary in the public interests, but it is afraid to make any changes. This appears in the question of trust regulation. There is, for example, no justification, from the standpoint of comparative costs of production, for the retention of the present rates of duty on iron and steel. Nevertheless, the Republican party, fearful of revisionist inroads, contents itself with a statement that combinations are subject to the laws and cannot be permitted to break them. The Democrats have always looked to tariff revision as one means of trust regulation. They now also accept a phase of policy on which the Republicans have laid stress, namely, the prevention of illicit advantages obtained through rebates and discriminations made by transportation companies. Following the precedents established by the Post Office in the case of the lotteries, they also urge that, when it is judicially found that a trust is monopolising inter-state business, it should be debarred from such business.

In his message of December 1901, President Roosevelt said, 'Reciprocity must be treated as the handmaiden of protection.' The extreme protectionist would place reciprocity in a very subordinate position. It required all the force and influence of President Roosevelt to drive through Congress the reciprocity agreement with Cuba. Even then he would probably have been unsuccessful had it not been that the interests engaged in refining cane-sugar, which were in favour of such an arrangement, came to an agreement with the beet-sugar interests which were opposed. In the mind of the extreme protectionist, any tampering with the tariff is dangerous. The tariff plank of the Chicago Convention, with its

promise of revision, is intended simply to appease the tariff revisionists. Whenever the question of revision is taken up, any change in the schedules will be actively opposed. The downright declaration against protection in the Democratic platform will stand the Republicans in good stead in this campaign, since it will prevent quarrels within the party in regard to details; for the revisionists are none the less believers in protection. The inevitable division is, however, only postponed.

The recent decision of the United States Supreme Court, upholding the legality of the exclusion of an alien on the ground that he was an anarchist, serves to show that the United States is being compelled to face the difficulties and dangers of the older world. Other old world-wide difficulties there are which, while they do not sap the foundations of organised government, intensify a friction between classes which is of serious concern. Foremost among these is the question of the relation between labour and capital.

It is only of recent years that labour in the United States has become thoroughly self-conscious. In the earlier days, when the amount of capital required in business was but small, the transition from labourer to employer was comparatively simple. Then, again, there was the regulating effect on the level of wages exercised by free land. The labourer, if dissatisfied with his wages, might betake himself to the free land which existed in abundance. But now there is no such opening; and, under changed conditions, organised labour has so flourished that there are now over 2,000,000 unionists in the United States. Of recent years there has at times been a veritable craze for organisation in some districts, which has been disconcerting to the older labour leaders. As conditions have become more and more stratified, especially in the eastern states, the labourer has had to look more and more to improvement in his condition from within the trade. While there is no doubt that, to the labourer of high ability and initiative, the door of opportunity is still open, to the routine toiler the prospect of having to subsist on a mere living wage is nearer than ever.

No labour leader stands more conspicuously before the American public to-day than John Mitchell, whose

success in the anthracite coal strike, in which he ably handled an organisation so heterogeneous that nine different languages are used in publishing its announcements, has given him a national position. In his recently published book, 'Organised Labor,' he asserts that the labour union movement is essentially a class struggle.

'Were the working men of the United States not a separate class with separate class interests, there would be less necessity for their separate organisation. . . . The average wage-earner has made up his mind that he must remain a wage-earner. He has given up the hope of a kingdom to come, where he himself will be a capitalist, and he asks that the reward for his work be given to him as a working man.' (Preface, and p. 93.)

In the pursuit of their class interests the unions are at one with the industrial combinations; a practical monopoly is the end that both have in view. Consequently the problem of unionism is being considered by the general public less from the standpoint of sympathetic acquiescence in a policy intended to benefit labour than from that of its effects on the consumer.

While unionism has increased in numerical force, it is unwilling to assume legal responsibilities. Still more important is the tendency which some of the unions have manifested to make their exemption from legal responsibility an excuse for violation of contract. In general, the standards of trade-union morality in regard to the binding obligations of contracts are lower in the United States than in England. The Amalgamated Association of Iron and Steel Workers has stated, through its president, that, no matter what contract is entered into, the obligation to obey the union always takes precedence. The large increase in membership has brought with it great dangers for the unions. Prompted by a spirit of narrow particularism, unions have fought against unions. They have in many cases gone too far in their demands. The Indiana organiser of the American Federation of Labour was compelled to say last year that 'there have been many strikes and labour difficulties in the gas belt which would have been avoided by a greater display of tact and cool-headedness on the part of the leaders.' Confidence in the integrity of the unions has been diminished when, as in New York, trade-union

officials have used their official position to exact payments on the threat of declaring a strike on some trumped-up pretext. It is still more serious to find that the members of these unions condoned such actions on the ground that it was the employer who paid.

It is true that, in public statements, the labour leaders have discouraged extreme measures likely to deprive them of public support; it is true that most of the leaders are averse to policies which encroach on public rights. But the labour leader, in order to lead, must in many cases follow. The declaration of the men, when the anthracite coal strike was commenced, was against the judgment of John Mitchell; while the action of local unions in such cities as New York, Chicago, and San Francisco has added largely to the popular bill of complaint. Arbitrary boycotts and far-reaching sympathetic strikes have been frequent. Not long ago a New York firm dealing in steam-pipe fittings was notified that it would be boycotted unless it refused to deal with firms which were not in good standing with the unions. In a wage dispute which arose between some coal operators and their employes in Indiana, the latter agreed to the choice of a neighbouring storekeeper as an arbitrator. Since they dealt with him they assumed that his award would be favourable. When the award went against them they boycotted his store, and imposed a penalty on every member of the union dealing with him. In Chicago an attempt was made to induce the grocers to refuse to supply the necessities of life to the families of freight-handlers who remained at work during a strike. 'If,' said the strikers, 'we cannot reach them [those who remain at work], we can reach their families.' In the city of San Francisco there is at present scarcely a street which is not perambulated by a sandwich-man bearing a statement that some firm is 'unfair' and therefore boycotted. In many cases this has stirred up public sympathy and support for the boycotted firm. These words have been written with a full recognition of the worthiness of many trade-union aims, and of the value of the results obtained, and with no desire to compose a mere *chronique scandaleuse*. It must, however, be recognised that the large increase in union membership has brought with it, in many instances, a regrettable

readiness to employ murderous violence, and a scandalous disregard of public rights.

Out of this situation there have developed in recent years associations intended to cope with the unions. In Dayton, Ohio, the unions had been unusually aggressive; expensive strikes had been carried on; and the effects upon business had been serious. In June 1900 thirty-eight employers formed the Employers' Association. Since then there have come into existence various national organisations—the Manufacturers' Association, the Anti-boycott Association, the Citizens' Industrial Association. All these organisations object to such trade-union methods as the boycott and the sympathetic strike. Their allegations that the unionists have in many cases endeavoured to limit the output are undoubtedly true. But, while these associations started by protesting against the excesses of unionism, they have already shown that they identify those excesses with unionism itself, and desire the extirpation of unions. They put forward as a principle the 'endeavour to make it possible for any person to obtain employment without being forced to join a labour organisation, and to encourage all such persons in their efforts to resist the compulsory methods of organised labour.'

The demand that employment should not be restricted to unionists appeals to the general public, which knows that the unions are endeavouring to ensure their monopoly and at the same time to restrict their membership. The policy of the 'open shop' has obtained a strong sanction from the award of the Anthracite Coal Strike Commission, which resolved 'that there shall be no discrimination against or interference with any employee who is not a member of a labour organisation by members of such organisation.' The public has become irritated by the dictatorial tone of a note such as follows, which was addressed to a Detroit firm early this year.

'You have in your employ a man who is not a member of our brass-makers' union, and whom we have urged to join, and he has not done so or given us any positive promise that he will. We . . . demand that he either join our union before Wednesday night, or that you discharge him. If this demand is not complied with, the members of our union will quit work in your factory until the above conditions are complied with.'

While the unionists regard the 'union' and the 'closed shop' as essential to their success, they have had more than once, as in the agreement between the New York Metal Trades Association and the Brotherhood of Boiler-makers, to be content with the statement that, while the employer will not discriminate against labour organisations, he is to have full power to employ or discharge such workmen as he may see fit.

It is not among employers alone that such associations are to be found. There exists also the Citizens' Alliance, composed of members of the general consuming public as well as of the employing class. This organisation has a rapidly growing membership in the country west of the Mississippi. It is of peculiar interest that the denunciations of trade-union aggression are most bitter among the non-employing members of this organisation. In its methods of organisation it closely follows those of the unions. The union endeavours to compel acquiescence through boycotts. At Denver, merchants were induced by thinly veiled threats of pressure to join the Alliance.

In the mining regions of Colorado there has long been friction between the employers and employés, which has in many cases culminated in open violence. In the miners' union there was a strong socialistic element, which readily countenanced recourse to violence. The local civil officials, elected by labour votes, were afraid to perform their duties. Finally, the employers invoked the assistance of the governor of the state; and the state militia was finally called in to quell the troubles. Since that time many of the marks of an insurrection have been visible. Dynamite has been used to assassinate non-union men and unionists have been deported from the state. Civil officials who were favourable to the unions have been summarily driven out of office. The writ of *Habeas corpus* has been disregarded. The military power has been supreme. Throughout these troubles the Citizens' Alliance has been active. It alleges that it was its threat of defeating Governor Peabody, when a candidate for re-election, which finally induced him to send troops into the disturbed districts. It further alleges that it has been instrumental in electing a judge favourable to its cause in place of one who had been opposed. Ostensibly non-political, its political activity is on the increase.

A feature of growing seriousness is the distrust of the law-courts manifested by the labour organisations. While this distrust is directed more particularly against the Federal Courts, it extends also to those of the states. It is alleged by the unions that judges who, during their professional career were attorneys for corporations, retain their corporation bias when raised to the bench. But the most concrete cause of this distrust is the attitude shown by the courts in regard to injunctions. While an injunction is traditionally limited to matters involving property rights, there has indirectly been transferred to the equity side a criminal jurisdiction; in accomplishing this the judges have laid stress both upon conspiracy and the public rights involved. It was found that preventive, not punitive, measures were needed in order to stop the destruction of property and the imperilling of public interests. In the development of this jurisdiction, however, there has undoubtedly been a serious infringement of private rights. A great growth of injunction proceedings is to be noted in the period between 1890 and 1894. The process was so broadened that by 1894 the so-called 'omnibus Bill' of the injunction issued by the Federal Courts in the Chicago strike of that year applied to twenty-three railways centring in Chicago. In this Bill, while some of the employés were mentioned by name, the process was so sweeping that it applied to all, named or unnamed, who should commit the prohibited acts. By putting those who violated the injunction in contempt of court, the summary procedure available soon put an end to the strike. While the judges have been under the necessity of guarding public rights, unionists have certainly had some reason for their attitude of suspicion, as, for instance, when they found a district judge in West Virginia denouncing labour leaders who were brought before him as 'vampires that fattened on the honest labour of the coal miners.'

In the injunctions which have been issued, the courts, both Federal and state, have forbidden by their preventive jurisdiction many of the devices upon which the unions have depended for success. In the Teamsters' strike in Omaha, in May 1903, the Federal Court granted an injunction which in substance forbade the posting of pickets, violent interference with employés, threats of

personal injury, or any other conduct intended to prevent employes from continuing in employment. In an injunction granted by a state court in Minnesota, in June 1904, it was stated that it was illegal for strikers

'to conspire to injure a contractor's business; to interfere with such business by threats directed against customers; to notify customers that contractors are unfair; to go on premises where contractors are employed to interfere with their business; to order union men to quit work because certain contractors may be employed thereon.'

In April of this year a New York court decided that an injunction might be issued to prevent a strike called to force the recognition of a union. In July of this year a Wisconsin judge decided that contracts made by incorporated labour unions with manufacturers to prohibit the employment of non-union workmen were void because they tended to create a monopoly.

Within the past ten years the courts have become increasingly critical of trade-union methods. The serious results involved in modern industrial disturbances, and the public interests concerned, which have led the courts to employ their preventive jurisdiction, have also led them to pay increasing attention to the question of responsibility. In Louisiana a firm of stevedores had made a three years' contract with the longshoremen's union. Owing to troubles not connected with the firm in question, the longshoremen were called out. In April of this year damages amounting to \$12,000 were awarded against the union. In Indiana it was held, in a case which came up in April 1903, that a labour union, even though unincorporated, may be sued when the suit pertains to questions affecting the relations of the union membership to public safety and order. In December 1903 a fine of \$1000 was imposed by an Illinois judge on the Chicago Pressfeeders' Association for violating an injunction. In Vermont the courts have awarded damages for injuries inflicted by a boycott.

So far, the labour unions have not taken part in politics as a distinct party; nevertheless they have obtained many concessions through political pressure. The union label idea, which originated with the cigar-makers of San Francisco, nominally to indicate to the

public that the cigars bearing the label were made under sanitary conditions, but in reality to force a discrimination against Chinese labour, has played a prominent part in city and in state politics. The unions have been successful in obtaining ordinances and laws requiring that the printing of the city or the state, as the case may be, shall bear the union label—in other words, shall be done in union printing shops. But recently a number of decisions have been given to the effect that this is class legislation, and therefore invalid. In many of the state laws against trusts the labour unions have been successful in obtaining exemption from such legislation.

Attempts have also been made to obtain legislation establishing the eight hours' day. At present twenty-one states have such legislation. In some cases the legislation is limited in its effects to work performed for governmental bodies; in others to specified employments, e.g. mining; while in others it is provided that the legislation shall apply in all cases unless otherwise stipulated in the contract. During the last session of Congress a Bill was unsuccessfully introduced, providing that on all government work, whether done by the Government directly or by private contractors, there should be an eight hours' day. In New York the courts have held a law of this nature to be invalid on the ground that, while the state might prescribe regulations for the conduct of its employes where it carries out the work itself, it has no such right, unless specifically reserved in the contract, when it lets out the performance of such work to a contractor. Labour influence in New York led to the passing of a law prohibiting the use, in the construction of public buildings, of stone dressed outside the state. The state courts have declared this law also invalid, as being in conflict with the Federal constitution. In Indiana an Act providing a minimum wage for unskilled labour employed on public works was declared unconstitutional on the double ground that it was class legislation, and that it also interfered with liberty of contract. It will be found that in the various legal decisions limiting the scope of labour-union activity the idea of freedom in regard to contractual relationships plays a very prominent part. Organised labour was active, during the last session of Congress, in a fruitless

attempt to obtain the enactment of an anti-injunction law. This measure was intended to restrain the meaning of the word 'conspiracy,' and to forbid the use of restraining orders from a Federal Court in equity in relation to a trade dispute. In several states unionists have been successful in obtaining the enactment of anti-injunction legislation, the constitutionality of which the courts, however, are unwilling to uphold.

When the labouring classes regard themselves more and more as separate, and promote their interests by methods which bring them into conflict with the conservators of established order, it is natural that the labour question should be actively forced upon the attention of the politicians. The labour vote has hitherto had most influence in local affairs, but it is becoming more prominent in national politics. In the present campaign the Republicans, after classing combinations of capital and of labour as results of normal economic conditions, state that such combinations are subject to the law. With this as an abstract proposition no one can disagree. It is, to use the phraseology of American politics, simply a 'straddle.' The Democratic platform was at first equally vague. The 'rights of labour' were no less 'vested,' 'sacred,' and 'inalienable' than those of capital. Later, at the instance of the western wing, this was amended by the addition of a thorough-going denunciation of the supersession of the civil by the military authority in labour disputes. This is directed at the conditions existing in Colorado. The platform also calls, although in milder tones than in 1896 and 1900, for the limitation of the use of writs of injunction in labour troubles. At the same time an attempt is made to appease the employers of labour by a statement that the denial of the right to labour by any individuals or organisations is improper.

The Republicans claim support from the labourers on the ground of the industrial activity due to the tariff. The 'full dinner-pail' argument, so much used in 1900, will again be used in the present campaign. While the United States have been going through a slow crisis, the industrial condition is, on the whole, satisfactory. The iron and steel industry has been in an unsatisfactory condition owing to a falling-off in home demand; but at the

same time the exports of iron and steel have been increased by the much discussed practice of 'dumping.' In the machine shops of the eastern states many men are out of work. There has been a curtailment in the labour forces of the railways. At the same time the prospect of satisfactory crops, and the greater ease in financial circles consequent upon the forced liquidations, which have removed much of the trouble caused by the speculative craze for industrial combinations, have put business in a condition sufficiently satisfactory for a political argument. Mr Hearst, one of the Democratic candidates for the Presidency, made a special effort to obtain the support of organised labour. His failure to obtain the nomination shows that, while the Democrats appear to make greater concessions to labour, its candidates in the present campaign were especially chosen with a view to appeasing the industrial employers of the East.

John Graham Brooks has said in his work on 'The Social Unrest' (p. 16) that 'the last [i.e. the anthracite coal] strike marks an epoch in the development of socialistic thought in this country.' This statement is amply justified by the state of opinion at the time. Under the pressure of a common need, the extra-legal action of President Roosevelt in intervening to bring about a settlement obtained general commendation. There is a growing feeling also—not organised, it is true—that the public interest in the necessities of life is too vital to be jeopardised by the dubious outcome of obstinate contests between capital and labour. The tendency to attribute more and more power to the Federal Government, to look to it more and more for active intervention in the affairs of daily life, has long been apparent. The outcome of the internal improvement experiments of the states, whose failure in the forties led to restraints upon their spending powers, was but one phase in that course of action to which the Civil War gave a more decisive impetus. The increasing complexity of industrial activity has promoted the centralisation of power. Inter-state organisation of industry and the problems connected therewith cannot be adequately dealt with by the legislative process of the individual states. In the working of the Federal Government itself, centralisation has been

necessary in order to obtain results. The one-man power of the Speaker of the House of Representatives has been developed in order to prevent that body from degenerating into a mere house of debate. The Democratic party, in its philosophy of state-action, clings to worn-out phrases. But it was a Democratic president who, by ordering the intervention of Federal troops in the Chicago strike, gave the most conclusive evidence that 'state rights' discussions were of abstract interest alone, and that a state could not be permitted to interfere with the proper pursuit of Federal interests.

While the Democratic party clings to the old phraseology, a division of opinion really exists in the party. The conservative element of the East would minimise the sphere of Federal activity. In part this is attributable to reasoned conviction, but also in part to selfish interest anxious to evade rigid supervision. In the western wing of the party there is in reality a willingness or, more exactly, a desire to extend the scope of government activity. There the distance from the seaboard and the lack of local capital have accustomed the people to depend upon the Federal Government for assistance, as, for example, in the case of the Pacific railways and the recent undertaking of irrigation in the arid lands. In the radical wing of the Democratic party Mr Bryan stands foremost; and he has already stated his intention of endeavouring to commit the party in 1908 to a policy of government ownership of the means of transportation. This attitude is an astute one, because, serious and disastrous as would be the results of such a policy if adopted, it commands more support than it would have had five years ago. The recognition of the fact that the anthracite coal beds in the United States are of such limited area as to confer upon their owners a monopoly steadily increasing in value, was a shock to the supporters of *laissez-faire*. In railroads the people saw with alarm a constantly narrowing concentration of control. Apart from the question of economic justification, the political effect of the decision in the Northern Securities case was undoubtedly very great. People were asking why, if, under existing laws, the control of railroads may be centralised in the different groups in the hands of a few men, that centralisation should not go on until the control

of all the railways comes into the hands of one set of men; and why, when this takes place, the ultimate control should not be at once transferred to the Government.

Apart from this subconscious socialism—if the acquiescence in the constantly expanding powers of the Federal Government may be so called—there has been a development of conscious socialism. The American Federation of Labour, the strongest labour organisation in the United States, is based on the autonomy of the skilled trades. Its attitude towards trade problems is that of trade selfishness. Like the labour unions of England before the 'new unionism' began, it holds out no hope for unskilled labour. It opposes any extension of the powers of the state, except in regard to legislation intended to guarantee labour rights. As one of its officials has said, the only representatives of state activity that it recognises are the health officer and the policeman. It has opposed political action on the part of its members as forming a separate political party. It is of opinion that any action of this kind would inevitably break up the organisation. It believes in advancing union interests through existing political parties. But, while its attitude is so far individualistic, the individualistic wing has not held control without a contest. Though as yet in the minority, the socialistic element is increasing in strength. The development of socialism in the labour unions has been most marked since 1890. Debs, the leader of the Chicago strike of 1895, has been active in socialistic propaganda. Moreover, the movement has become more dependent on the leadership of native-born Americans. In Colorado the backbone of the present labour troubles is the Western Federation of Miners. This organisation, which is an offshoot of the American Federation of Labour, is strongly socialistic in its aims. The American Labour Union, the Western Federation of Miners, and the United Brotherhood of Railway Employés are socialistic organisations whose membership amounts to about 300,000. While the regular trade unionists, such as Gompers, president of the American Federation of Labour, or John Mitchell, look to a rise of wages and to labour legislation through influence on the existing political parties, the Western Federation of Miners, at its convention in Denver in 1903, resolved that

'political independence is a bauble and a delusion while the toiling millions bear the yoke of wage-slavery in the industrial field. . . . Capitalism can never be dethroned and wage-slavery abolished until the natural resources of the earth and the machinery of production and distribution shall be taken from the hands of the few by the political power of the many, to become the collective property of all mankind and to be utilised for the use and benefit of all humanity.'

The leaders of the trade-union movement feel, however, that the socialistic movement is endangering the fortunes of trade unionism, for public opinion unthinkingly lumps all unionism together. The leaders of the American Federation of Labour will admit privately that the overthrow of such socialistic organisations would be beneficial. These organisations, on the other hand, openly assail the regular trade unionism with such remarks as that 'conservatism in a labour organisation is rapidly becoming a synonym for cowardice.'

The Populist party, which for a time represented the discontent of the farming class, conducted its propaganda along the lines of state socialism. This party has, however, practically disappeared as a separate organisation. Its former members have to a great extent joined the radical wing of the Democratic party. The strength of socialism does not really appear in the Presidential elections. In 1900 the distinctly socialistic vote was less than 125,000. But many socialists align themselves with the more radical minor parties. While the Populistic party does not go so far as the extreme socialists, it has, at the same time, obtained a considerable socialistic support. In local affairs the socialistic vote and influence are increasing. At the most recent election to the mayoralty of Minneapolis, it was only by a combination of the Republicans with the Democrats that the socialistic candidate was defeated.

The personality of President Roosevelt is, however, more potent than any platform statement or partisan argument. He has done more than any other occupant of the White House to confer a status on organised labour. He is an honorary member of the locomotive firemen's union. His intervention in the anthracite coal strike added to the prestige of the miners' union.

Nevertheless, he is opposed to the exclusion of individuals from work on the ground of lack of union affiliation. In dealing with the claims of labour unions to establish 'closed shop' in the government service, he threw political opportunism to the winds, and greatly strengthened himself thereby. In 1903 one Miller, who had been an assistant foreman in the bindery of the government printing office, became involved in difficulties within his union because he had caused his workmen to do more than the union permitted. For this and other minor reasons he was expelled from the union. The public printer, at the request of the union, dismissed him from the public service. When the matter was brought to President Roosevelt's attention, he ordered Miller's reinstatement, and in so doing said :—

'In the employment and dismissal of men in the government service, I can no more recognise the fact that a man does or does not belong to a union as being for or against him, than I can recognise the fact that he is a Protestant or a Catholic, a Jew or a Gentile, as being for or against him.'

In more than one instance, equally to his credit, but to which less publicity has been given, the President has interfered to counteract the petty arrogance of those unions whose members were in the government service. His record in matters pertaining to labour has compelled the respect of employers and employed.

It may be said with truth that the Democrats have insisted in making President Roosevelt the issue. Denunciation and criticism of his methods and of his policy are to be found throughout their statements. There is doubtless room for criticism. To that publicity which he has recommended for the trusts, he has exposed in a still greater degree his own public actions. There has been somewhat too much of conscious effort and fussy activity over things that could have been more quietly done. By nature he demands an audience. In his essays, or rather moral discourses, it is his elaboration of the obvious which has given him a hold on the public imagination. He has preached to the American people the doctrine of the 'strenuous life'; and that people, which has been talking and acting strenuously for more than twice forty years, hails it as a gospel. But these

are, after all, personal matters, and do not greatly affect his public efficiency. He has the cardinal merit of having done things. He has enforced the laws, letting the consequences look after themselves. He has brought to all his actions honesty of purpose and steadfastness of endeavour. He is a politician, it is true; but it has been the higher, not the lower, expediency that he has kept in mind. He has always worked through the party organisation, and has believed it better to share the control of his party than to follow illusory hopes of reform independent of party ties.

He was elected to the Vice-Presidency because it was thought it would be his political death. The Republican party has for years been the party of 'vested interests.' In his endeavour to serve the public interests he has alienated those whose personal aims were best furthered by non-interference. Those who endeavoured to shelve him by nominating him for the Vice-Presidency in 1900 would gladly have prevented his receiving the presidential nomination this year. But his choice by the Republican Convention was as nearly a popular choice as any convention choice can be. The fervid eulogies conferred upon him by the members of that body, while savouring in some instances of party necessity rather than of personal belief, show that the Republican party has been forced to recognise him as perhaps its best asset. He has been described as the master of his party, not its servant. A few years ago there were those in politics who vulgarised a high position by calling the President 'the nation's hired man.' The progress of the nation and the larger problems now presented to it are more and more insistently demanding a leader in the presidential chair. In relation to his party he has fairly taken such a position. In the present campaign the platform is practically his. It is also his nominee who will conduct the campaign. The Democratic platform is apparently more congregational in its origin. But it must be remembered that it was not only the task of the Democrats to find a candidate acceptable to the majority, but also to construct a platform which those who would support this candidate would accept.

While there is but little that is not known about President Roosevelt, there is little that is known about

Mr Parker. A successful judge of an eminently judicial tone, he has kept aloof from active participation in political affairs for many years. He comes to the campaign as a Democrat whose 'regularity' cannot be impeached, and who, fortunately, has not been mixed up in the Democratic factional squabbles of the last eight years. The party which for eight years appealed to the radicalism of the West now appeals in its candidates to the conservatism of the East. But, while it appeals to the East, it is a question whether it can retain its hold in the West. Here the personal influence of Mr Bryan is of great importance. The castigations of 'Wall Street influence,' which have become chronic with Mr Bryan, are now directed against elements in the party he is pledged to support. Party discipline prevents his abstaining from voting for the selected candidate. But, as regards active participation in the campaign, it is probable that he will be a sulky Achilles, yet vocal with discontent.

Though President Roosevelt is a New Yorker, there is considerable probability that he will not carry his own state. It is likely that some of those interested in industrial combinations may array themselves against Roosevelt, and this notwithstanding the statements in the Democratic platform. This will be owing partly to annoyance with the President, and partly to the position which Mr Parker is presumed to hold in regard to trust regulation. It may be deduced from some of his judicial decisions that he believes in a stricter construction of the Federal constitution. The New York platform, while declaring for the maintenance of state rights and home rule, also asserts that corporations chartered by a state must be subject to the regulation of that state in the interest of the people. Since there is no Federal corporation law, this means that the control should be in the hands of the states. But this attitude inevitably carries with it the result that, since no uniformity of action can be expected from the individual states, no real regulation can be expected from this policy. The Republican party, while urging that trusts are the outcome of world conditions, has, under President Roosevelt, endeavoured to regulate them by a domestic remedy, and therefore believes in control by Federal legislation. A steadfast attempt to control the trusts has actually been made.

But even if the doctrinaire attitude of the Democrats, as indicated in the opinions of their eastern wing, should, by appealing to selfish interests, attract any considerable support from those interested in trusts, this would strengthen Mr Roosevelt in the Central West, where there is among the farming classes a growing feeling of anxiety in regard to the effects of concentrated industry. While it is true that the Democratic party has effected a reunion of its scattered forces, the compromises are so obvious that it remains to be seen how effective the organisation will be. Democratic attacks will, to a great extent, be concentrated on President Roosevelt; while the balanced character of the Democratic platform will make the personality of Mr Parker an important factor in the campaign.

It is only in the presidential year that the American public takes a keen interest in general politics. The present campaign has so far been characterised by singular quietness and lack of fervour. In 1896, when Mr Bryan effected his spectacular *coup* in the Chicago Convention, the political caldron was boiling from July until November. In the present year it was not until the latter part of August that the field work of the two political parties began. From the business stand-point this has been fortunate, in that there has been less industrial disturbance than is common in the presidential year. The presidential nominees have given a tone of quietness to the campaign. Mr Roosevelt, who in 1900 went on a protracted speech-making tour in the western states, has now attained to a conception of the dignity of the presidential office which prevents him from claiming it in speeches delivered from the rear platforms of railway trains. Mr Parker's judicial training, added to his high opinion of the dignity of the office, prevents his emulating Mr Bryan's exploits during the campaign of 1896.

When Mr Parker, by declaring his acceptance of the gold standard, strengthened a plank in the Democratic platform which was weak to the verge of cowardice, exaggerated opinions of his power were created. Of his honesty of purpose, and of the high ideals which he connects with the presidential office, there has been increasing proof. But it is also apparent that his strength was greatest when he was silent. While it is the fortune

of those in opposition to criticise, Mr Parker has been forced, if not to bless, at least, in essence, to acquiesce in some of the Republican policies which he at the same time criticises. Mr Roosevelt, in his thorough-going acceptance of Protection, showed the politician's insight by connecting the Democratic position with the statement that Protection is robbery. Mr Parker's attitude towards the tariff is in substantial agreement with that of the revisionist wing of the Republican party. He desires 'a reasonable reduction of the tariff.' At the same time he states that between the date of the enactment of such amending legislation and its enforcement there should intervene a sufficient length of time to permit business to be adjusted to altered conditions. Appealing to the business interests of the East, he at the same time further qualifies his position by saying that, even if the Democrats should be elected, the Republican majority in the Senate would prevent any modification for at least four years. While the Democratic party calls for further legislation to curb the trusts, the Democratic nominee thinks that 'the common law as developed affords a complete legal remedy against monopolies.' Yet, while this is the reasoned outcome of his judicial experience, he is still open to conviction that further legislation along constitutional lines is justifiable. While the Democratic party has pronounced for the immediate independence of the Philippines, Mr Parker's statement on this question has been so cryptic that a number of the leading Democratic newspapers are at a loss to interpret it. President Roosevelt reiterates his position that the Filipinos are being steadily prepared for self-government.

'We have established in the islands' (he says) 'a government of Americans assisted by Filipinos. We are steadily striving to transform this into self-government by the Filipinos assisted by the Americans.'

He declares that the Filipinos have already been given a large share in the government of the islands, and that it is the intention of the Republican party to increase this share as rapidly as they give evidence of increasing fitness for the task. While Mr Parker states that 'the government was not created for a career of political or civilising evangelisation in foreign countries or among

alien races,' he at the same time recognises that the accident of war which brought the Philippines to the United States brought with it a responsibility which the latter cannot disregard. When he adds that this responsibility 'will be best subserved by preparing the islanders so rapidly as possible for self-government, and giving to them the assurances that it will come so soon as they are reasonably prepared for it,' his position is distinguishable from that of President Roosevelt only by the ingenuity of partisan logic.

The Democrats have reason to expect gains in the eastern states. While the support of Massachusetts is always pledged to the Republican party, the interest which the merchants and manufacturers of that state have taken in closer trade relations with Canada have forced the Republican leaders, for example Senator Lodge, to pay attention to a question which it was hoped the platform declaration would shelve until after the election. Conditions are favourable to the Democrats in New York, New Jersey, Maryland, and West Virginia. The reorganisation of the Democratic party has brought into prominent advisory positions a number of leading 'gold' Democrats. The Democrats, who under Mr Bryan prided themselves on being a 'poor man's' party, now bring to bear as much wealth and corporate influence as ever characterised the Republicans in the days of Mr Bryan's fiercest denunciations. But, while this means the rallying to the Democratic standard of a strong support among the business interests of the East, it also presents difficulties. Though Mr Bryan has been eliminated by the Democratic leaders, he has a considerable following among the rank and file. Mr Watson, of Georgia, the Populistic nominee for president, who is in sympathy with many of Mr Bryan's views, may attract sufficient votes from the Bryanite element to place the Democratic fortunes in the East in jeopardy. In the western states the influence of Bryan is still strong among those who do not belong to the party organisation. This element has been so accustomed to denunciation of corporate influences that it is now showing great sullenness and recalcitrancy in placing itself in the Democratic line; and many members of this section have declared their intention to vote for Mr Roosevelt, on the

ground that he is less subservient to corporate influences than Mr Parker. In the states of the Pacific slope there is no great enthusiasm for Mr Parker. He is unknown, while Mr Roosevelt is known and commands respect.

The Republican party has decided to make Protection the issue in the time yet to elapse before the termination of the campaign. It has already been indicated that it is the policy of the eastern Democrats to minimise the platform declarations on this topic. It is in the eastern and in the western states that the main interest of the campaign is to be found. While the Republicans are not willing to give up the East to their opponents, the latter will probably make substantial gains. In New York, whose political affiliations have been extremely changeable, Mr Roosevelt is weak. When he was elected Governor on his Spanish-American war record, his majority was less than eighteen thousand votes.

But even if, as seems probable, the Democrats carry New York, this state has no longer such pivotal importance as it once possessed. The exhibition now being held in St Louis commemorates the most significant fact in American development. The industrial prominence which is increasingly characteristic of the Mississippi valley reflects the importance of the part which that district plays in the councils of the nation. Here the general average favours the Republicans. In Indiana the Democratic chairman, a resident of that state, has hopes for his party's success. On the other hand, the Republicans hope that the fact that their vice-presidential nominee is a native of Indiana will keep it in line. Indiana is one of the pivotal states in the campaign. While its vote in the electoral college is not large, the capture of this state will give the Democrats a fighting chance in the central West. It is also a state of varying political fortunes. In the eight presidential campaigns between 1872 and 1900 it gave a majority for the Democrats on three occasions and for the Republicans on five. The most decisive election was in 1900, when, out of some 640,000 votes cast, the Republicans received a majority of 26,000. The uncertainty is also increased by the fact that Indiana has the evil prominence of possessing a comparatively large number of corruptible voters.

In Wisconsin and Washington, the Democrats hope

to win because of internecine struggles in the Republican party. But while these may mean a loss so far as the candidates for state office are concerned, the party discipline is too efficient to permit these conditions to affect the choice of presidential electors. In Colorado the labour troubles are expected to assist the Democrats; and a similar outcome is expected in connexion with the strike in the packing industry in Chicago. On the other hand, party pressure is being exerted to prevent the labour troubles in New York City from affecting the Democratic party adversely. While the Democrats hope for gains in the Rocky Mountain states generally, it has to be recognised that Roosevelt has a strong hold on the confidence of the people of this district. This is attributable to personal reasons, not the least of which is his somewhat theatrical connexion with the 'Rough Riders' in Cuba, and the fact that he was at one time engaged in ranching in the Dakotas. But this attitude is strengthened by the selfish interests of the people. Under the Wilson Bill wool was placed on the free list; the farmers of the central West and of the far North-West, who are engaged in sheep-raising, are afraid of any such change in tariff policy as will again depreciate the value of their product.

The Republican party has made mistakes. There have been unsavoury scandals under its administration; but no one is more in earnest than President Roosevelt in the endeavour to eradicate such evils. Since 1896 it is the Republican party which has been characterised by governing ability. The present campaign is one in which the issues, as stated in the platforms, are for the most part factitious. The interest centres in personalities. The outcome of the contest, it can hardly be doubted, will be a further mandate to the Republican party to carry out the policy which it has undertaken.

Art. IX.—BRITISH RULE IN EGYPT.

1. *England in Egypt.* By Lord Milner. Seventh edition. London: Edward Arnold, 1903.
 2. *The Story of the Khedivate.* By Edward Dicey, C.B. London: Rivingtons, 1902.
 3. *The Binding of the Nile, and the New Soudan.* By the Hon. Sidney Peel. London: Edward Arnold, 1904.
 4. *The Expansion of Egypt under Anglo-Egyptian Condominium.* By A. Silva White. London: Methuen, 1899.
 5. *Egypt and the Hinterland.* By Frederic W. Fuller. London: Longmans, 1901.
 6. *Situation Internationale de l'Égypte et du Soudan.* By Jules Cocheris. Paris: Plon-Nourrit et C^{ie}, 1903.
 7. *La Transformation de l'Égypte.* By Albert Métin. Paris: Félix Alcan, 1903.
 8. *Les Anglais aux Indes et en Égypte.* By Eugène Aubin. Paris: Armand Colin, 1900.
 9. *Convention and Declarations between Great Britain and France.* Presented to Parliament, April 1904.
 10. *Reports by His Majesty's Agent and Consul-General on Egypt and the Soudan.* Presented to Parliament, 1904.
 11. *Report by Sir William Garstin upon the Basin of the Upper Nile.* Presented to Parliament, 1904.
- And other works.

MORE than threescore years ago the author of 'Eothen' sat beneath the Sphinx and mused as follows in prophetic inspiration :

'And we, we shall die, and Islam will wither away, and the Englishman, leaning far over to hold his loved India, will plant a firm foot on the banks of the Nile, and sit in the seats of the Faithful; and still that sleepless rock will lie watching and watching the works of the new, busy race, with those same sad, earnest eyes, and the same tranquil mien everlasting. You dare not mock at the Sphinx!'

This prediction has been in course of gradual fulfilment during the last quarter of a century—not, as many able and intelligent persons on the Continent have persuaded themselves to believe, through the deep-laid schemes of perfidious Albion, but in spite of the efforts of many successive party administrations in this country to discharge the engagements, made in good faith and sincerity,

to withdraw the British army of occupation as soon as possible after the suppression of the rebellion of Arabi. The stars in their courses appear to have fought stubbornly against evacuation; while the efforts which we have made to disembarass ourselves of what the majority of the nation regarded as a dangerous incubus, and to accelerate the moment of departure, and still more, the petulant and harassing agitation fostered by all who were disaffected to a continuance of our rule, have resulted in strengthening and consolidating it. Our occupation of Egypt has thus eventually become a notable example of the truth of the proverb, 'Il n'y a que le provisoire qui dure.'

British interest in Egypt has an intimate connexion with the growth of our Indian Empire. It began, curiously enough, on the farther side with the development of the maritime commerce of India with the Red Sea ports; and the rivalry with France was antecedent to the Napoleonic invasion. That operation, however, may be taken as the substantial commencement of serious competition between England and France for influence in Egypt—a competition which endured actively for more than a century, but has now happily been laid to rest by the agreement of April 8, 1904, with France. It is singular to observe what a powerful factor maritime predominance has been in the contest.

Napoleon landed in Egypt on July 1, 1798. On the 1st of August Nelson defeated the French fleet at the battle of the Nile. From that day the eventual fate of the French army in Egypt was inevitable, although the defeat of the French on land by Sir Ralph Abercromby did not take place until March 8, 1801. In the war of Greek independence Mehemet Ali's fleet shared the fate of the Turkish navy at Navarino. From 1832 to 1841 the Pasha of Egypt was in rebellion against the Sultan; and the decisive actions of that long campaign were the capture of Acre by the British and the blockade of the Egyptian fleet in Alexandria by Sir Charles Napier, which compelled the evacuation of Syria. Mehemet Ali was, however, established as hereditary ruler of Egypt, mainly by Lord Palmerston's influence; and modern Egypt came into being as a separate state.

Mehemet Ali abdicated in 1848 and was followed by

his grandson Abbas, who came to a mysterious end in 1854, and was succeeded by his uncle Said, the youngest son of Mehemet Ali. Said, on his death in 1863, was succeeded by Ismail the son of Ibrahim, the adopted son of the founder of the dynasty. These inheritances were according to the usual rule of Islam, viz. the senior male descendant. Ismail obtained from the Sultan the title of Khedive, the rule of succession by primogeniture, and a further degree of independence, in consideration of an increase of the tribute from 80,000 to 150,000 purses. The subsequent firmans of investiture, granted to Tewfik and Abbas Hilmi, are similar in essentials. All contain reserves in favour of the Sultan. The Egyptian flag is that of the Ottoman Empire. Taxation is levied in the name of the Sultan; money is minted with his superscription; military and honorific titles are conferred in his name. Conventions made with foreign Powers must not infringe upon Turkish treaties, and must be communicated to the Porte before promulgation. To contract fresh loans is forbidden. The number of the military forces is not to exceed 18,000. No territorial concessions are to be made.* The terms imposed by the paramount sovereign appear to leave extremely little independence to his vassal; but in reality Egypt passed in 1840-41 from the status of a dependent province of the Ottoman Empire into that of a state under tutelage more or less international.†

At first the Powers were concerned with the control and protection of a powerful and rebellious feudatory; but in 1854 a fresh interest was created by the concession for the construction of the Suez Canal; and in 1862 the first foreign loan was contracted—3,292,000*l.* at 7 per cent.—by Said. When Ismail succeeded in the following year, he plunged at once into a career of reckless borrowing, which raised the external debt to a little short of 100,000,000*l.* sterling. To these foreign loans may be attributed in the main the changes which have since come over Egypt. The last notable contribution to Ismail's funds was obtained by the sale of his shares in the Suez Canal. He had offered them to France; and the Duc Decazes, who was then Foreign Minister, had

* Paragraph iv, firman of 1870.

† Hatti Cherif, July 15, 1840; Memorandum, January 30, 1841.

declined them.* Lord Beaconsfield had no hesitation in acquiring them; and the transaction was concluded without delay. Some months before the purchase of the canal shares, the Khedive expressed a wish to have an English official to advise the Egyptian Treasury. Mr Cave was entrusted with a mission to enquire into the finances of Egypt; and his report affords the first impartial review of the situation. It showed that the embarrassments of the Khedive, though not irretrievable, were susceptible of liquidation only by external assistance, which at that moment was not forthcoming.

In April 1876 Ismail committed his first overt act of bankruptcy by suspending the payment of interest upon Treasury Bonds. The creditors in Paris and London began to agitate for intervention; and a fresh enquiry was instituted by the Goschen-Joubert mission. Ismail still clung to the retention of uncontrolled authority over the finances of Egypt, and threw difficulties in the way of obtaining information and realising assets, but eventually agreed to govern by a responsible ministry, with English and French members. This lasted but a few months, and was then summarily dismissed. At the instance of Germany, England, and France, Ismail was deposed by the Sultan; and Tewfik was named as his successor on June 25, 1879.

A commission of liquidation, nominated by England, France, Germany, Austria, and Italy, was appointed by the new Khedive; and the law of liquidation was evolved, in which the indebtedness of Egypt was settled at 98,685,930*l*. The interest upon this sum absorbed about 4,500,000*l*., or half the whole revenue of the country. In the course of the proceedings in bankruptcy, a body representing the interests of the international creditors was created which has, under the well-known name of the 'Caisse de la Dette,' since then exercised a predominant influence in Egyptian finance; and France and England demanded and obtained the appointment of two supervising officials, with considerable powers over the Egyptian administration. This dual control subsisted until the Arabi rebellion was suppressed by the naval and military forces of Great Britain in 1882, when France declined

* Cocheris, 'Situation Internationale de l'Égypte et du Soudan,' p. 74.

to co-operate. Lord Dufferin was then sent on a special mission to Egypt to advise the Khedive in regard to arrangements for re-establishing his authority. Upon Lord Dufferin's recommendation the dual control was abolished, and a British financial adviser was substituted. France, which had borne no part of the burden of suppressing the rebellion, made a formal protest, but accepted the change. With the exception of entrusting the re-formation of the Egyptian army to British officers, no other change was then made. The administration of the 'Caisse de la Dette,' the Domain, the Daira, and the railways was continued unaltered; and the Capitulations and the mixed tribunals remained unchanged. Nothing can be more absolutely certain than that the earnest desire and intention of Mr Gladstone's Government, and indeed of the vast majority of Englishmen at that time, was to withdraw from Egypt as soon as possible; and that the suspicions of France and Turkey—that our military operations for the suppression of anarchy in Egypt were the outcome of a long-cherished design for obtaining possession of that country—were entirely groundless. There were, however, some few persons who held that the British occupation could not be terminated within any limit of time which it was then possible to forecast, without a recurrence of the conditions which led to it; and that party, though at first very small, has gradually gained general support. The nature of our responsibility as the occupying Power was clearly recognised in a despatch from Lord Granville to Sir Evelyn Baring, dated January 4, 1884, in which he wrote:—

'I hardly need point out that, in important questions, where the administration and safety of Egypt are at stake, it is indispensable that H.M. Government should, so long as the provisional occupation of the country by English troops continues, be assured that the advice which, after full consideration of the views of the Egyptian Government, they may feel it their duty to tender to the Khedive, should be followed. It should be made clear to the Egyptian Ministers and Governors of provinces that the responsibility which for the time rests upon England obliges H.M. Government to insist on the adoption of the policy which they recommend, and that it will be necessary that those Ministers and Governors who do not follow this course should cease to hold their offices.'

This, as Lord Milner observes, was plain speaking. It meant that the representative of H.M. Government must be consulted and obeyed; and it was in fact a realisation of what Lord Dufferin had aptly described as 'the masterful hand of a Resident.'

Happily for Egypt, for Great Britain, and indeed for the whole world, the mantle fell upon the shoulders of Sir Evelyn Baring, whose intimate acquaintance with the country and with the difficulties which it presented, as well as his administrative and financial experience, rendered him eminently fitted for the rôle of a benevolent despot. He entered upon his duties at a troublous time. The finances were burdened by the expenditure occasioned by the rebellion, by the Alexandria indemnities, and by the military operations in the Soudan; and the deficits were entirely beyond the margin left to defray administrative charges by the law of liquidation. A fresh loan and a readjustment of the incidence of the debt were indispensable to solvency. A conference was held in London in 1884 at which we proposed a reduction of the rate of interest on the external debt and a suspension of the sinking fund, coupled with an undertaking to fix a date for the withdrawal of our troops. No agreement was arrived at; but in the following year the discussion was renewed. By the Convention of London of 1885 the Powers agreed to a modification of the law of liquidation, in the sense that a reduction of interest was accorded for two years, a scale of administrative expenditure was authorised, the surplus arising from the excess of the assigned revenues over the interest and other calls upon the Caisse de la Dette was divided in equal moieties between the Government and the Caisse, and a loan of 9,000,000*l.* was guaranteed by the Powers. This settlement, although it alleviated the stringent terms of the law of liquidation, still contained many hampering restrictions which have impeded the progressive improvement of the financial position. It may, however, be regarded as the turning-point from insolvency to prosperity, mainly because it enabled a commencement to be made in the development of the natural resources of the country by reproductive expenditure upon irrigation, for which 1,000,000*l.* sterling was provided.

The English had now been three years in Egypt. They were troublous years in many ways; and the desire to be relieved of the many embarrassments occasioned by the occupation was very strong. The finances were burdened by the cost of the Arabi revolt, by the Alexandria indemnities, by the Mahdist movement, by the defeats of Hicks and Baker, by the two British Souakin expeditions, by the Nile expedition, and by the very measures which were taken to lessen responsibility by evacuating the Soudan. At home attention was diverted from Egypt by the apprehension of war with Russia; and a sum of 11,000,000*l.* was voted for military preparations. It was held by the highest military authorities that, in the event of European war, our small army could not carry on operations in the Soudan at the same time. Sir Henry Wolff was therefore sent to Constantinople to negotiate an arrangement with the Sultan; and, after two years of discussion, a convention was signed on May 22, 1887, by which the British army of occupation was to be withdrawn in three years, and the British control over the Egyptian army terminated after a further period of two years. The Powers were to be invited to guarantee the territorial security of Egypt. If further occasions arose for military intervention in Egypt, Turkish troops were to be sent, in concert with British, who were to have a power to re-occupy. This was a sincere attempt to fulfil our engagements. It was supported at Constantinople by Germany, Austria, and Italy, but opposed by France and Russia. The Sultan refused to ratify, and the Convention became abortive.*

To many in England the failure was a relief. Internationalism in Egypt had already revealed many weak and objectionable features; and the formal recognition of Turkish intervention was a distinctly retrograde step. Looking back upon the conditions of the Wolff-Mukhtar Convention, we cannot but be astonished that the opposition to it was due to the very countries—France and Turkey—which would have profited most by it, from their points of view. For Egypt, it will now be recognised, the Convention would have been a grave misfortune, and for England a hampering embarrassment. We have

* Blue-book, May 31–August 1, 1887.

among ourselves a considerable number of persons whose conception of political duties is always coloured by instinctive opposition to all measures emanating from the Government in power. In France a similar and, at times, a very strong and influential party cherished a traditional antagonism to the English and all their works in Egypt. For many years this party had a predominant influence over the policy of France. It opposed every reform in Egypt, not because the proposals were regarded as unreasonable, but because they had been made by the English. The abolition of the *corvée*, the taxation of foreigners, the improvement of the finances, besides a multitude of measures of minor importance, were systematically obstructed by France, notwithstanding the obvious fact that French interests would suffer, in common with all the rest, by the delay and opposition. It was a policy of pin-pricks, annoying but ineffective, and was disapproved by many French statesmen.

There was, however, one particular act which merits a passing mention, as its details appear to be imperfectly known in England. It is what we know as the Fashoda incident, which both countries are now content to bury in oblivion. M. Jules Cocheris, in his exhaustive volume on the 'International Situation of Egypt and the Soudan,' devotes a whole chapter to the subject. He attributes the conception of forming a belt of French territory across northern Africa from Senegal to Jibuti to President Carnot in the spring of 1893. It will be recollected that the fall of Khartoum, the surrender of Kassala to the dervishes, and the withdrawal from Dongola to Wady Halfa had occurred in 1885. The evacuation of the Soudan was complete. Some held that it remained under the paramount sovereignty of the Sultan; others, that it was a *res nullius*. The President, however, wished to re-open the Egyptian question; and he thought that the future of France and her position in the world were at stake. The project of an all-British railway from Cairo to the Cape of Good Hope, initiated by Cecil Rhodes, and the acquisition of Uganda and the equatorial sources of the Nile by Great Britain were regarded with much suspicion in France; and the French Colonial party regarded the interruption of continuity of control over the basin of the Nile as the only way in which the

Egyptian question could be satisfactorily settled, and England compelled to evacuate Egypt.

Preparations for the immediate execution of this bold and ingenious project were made, but they were not, for various reasons, put in effect. Two years elapsed before Her Majesty's Government made a pronouncement upon the matter, when, in the clearest and most definite manner, Sir Edward Grey declared that the despatch of such expeditions would be regarded as an unfriendly act. Nevertheless the fascinations of the combination proved to be too attractive, and the two expeditions were shortly afterwards despatched.

In the following year, 1896, the campaign against the dervishes for the reconquest of the Soudan was renewed; and on September 23 Sir Herbert Kitchener entered Dongola. The year 1897 witnessed the inception of the desert railway and the recapture of Abou Hamed and Berber; and on September 2, 1898, the Sirdar totally defeated the combined forces of the Khalifa at Om-Durman. Meanwhile the Franco-Abyssinian expedition had reached the junction of the Nile and Sobat on June 22, but, owing to sickness and want of provisions, had to withdraw without effecting the contemplated junction with Marchand, who arrived, by the Bahr-el-Ghazal, at Fashoda on July 10, with a very small force. Two months later Kitchener explained to him the situation in the Soudan, and, after leaving a small garrison at the mouth of the Sobat and hoisting the Egyptian flag, returned to Khartoum, leaving the intrepid explorer to await the commands of his Government. The Marchand expedition aroused much admiration and patriotic feeling in France; while in England it was universally resented and elicited strong expressions of disapproval. Happily the adjustment lay in the hands of statesmen of calm temperament and conciliatory intention, whose experienced sense of proportion reduced the incident to the insignificant proportions which it really merited in the relations between the two great countries they represented. Not long after the reconquest of the Soudan, under these wise and sensible influences, a further step was taken to reconcile the rivalries of the two Powers. On March 21, 1899, Lord Salisbury and M. Cambon signed a declaration by which France engaged herself not to

acquire either territory or political influence to the east of a line drawn from the southern confines of Tripoli, between Darfour and Wadai, to the water-parting between the Nile and the Congo.

This settlement was adversely criticised, but it was the commencement of friendly relations which have since then received considerable development, culminating in the agreements entered into on April 8, 1904, by the Marquis of Lansdowne and M. Cambon, on behalf of their respective Governments—agreements inspired largely by the interchange of friendly visits between His Majesty the King and the President of the Republic, and manifesting on both sides an admirable spirit of conciliation on the part of the negotiators.

It is only with those sections which relate to Egypt that we are here concerned; and it is impossible to describe them more clearly than in the words of Lord Lansdowne's despatch forwarding them to Sir Edward Monson, from which the following quotations are extracted:—

'From a British point of view there is no more remarkable episode in recent history than that which concerns the establishment and the gradual development of British influence in Egypt. Our occupation of that country, at first regarded as temporary, has, by the force of circumstances, become firmly established. Under the guidance of the eminent public servant who has, for the last twenty years, represented His Majesty's Government in that country, Egypt has advanced by rapid strides along the path of financial and material prosperity. The destruction of the power of the Mahdi and the annexation of the Soudan have increased that influence and added to the stability of our occupation.

'But while these developments have, in fact, rapidly modified the international situation in Egypt, the financial and administrative system which prevails is a survival of an order of things which no longer exists, and is not only out of date, but full of inconvenience to all concerned. It is based upon the very elaborate and intricate provisions of the Law of Liquidation of 1880, and the London Convention of 1885. With the financial and material improvement of Egypt these provisions have become a hindrance instead of an aid to the development of the resources of the country. The friction, inconvenience, and actual loss to the Egyptian Treasury which it has occasioned have been pointed out by Lord Cromer on many occasions in his annual Reports. It is well

described in the following passage which occurs in Lord Milner's standard work on Egypt:—

“The spectacle of Egypt, with her Treasury full of money, yet not allowed to use that money for an object which, on a moderate calculation, should add 20 per cent. to the wealth of the country, is as distressing as it is ludicrous. Every year that passes illustrates more forcibly the injustice of maintaining, in these days of insured solvency, the restrictions imposed upon the financial freedom of the Egyptian Government at a time of bankruptcy—restrictions justifiable then, but wholly unjustifiable now. No one would object to the continuance of the arrangement by which certain revenues are paid in the first instance to the Caisse de la Dette. But as long as these revenues suffice to cover the interest on the Debt, and to provide any sinking fund which the Powers may deem adequate, the balance ought simply to be handed over to the Egyptian Government to deal with as it pleases, and the antiquated distinction of ‘authorised’ and ‘unauthorised’ expenditure should be swept away. No reform is more necessary than this, if the country is to derive the greatest possible benefit from the improved condition of its finances, which has been attained by such severe privations.”

Lord Lansdowne proceeds to explain the anomalies and inconveniences which are connected with the Caisse de la Dette and other international administrations in Egypt, and the manner in which it was proposed to remedy them, so as to give the Egyptian Government a free hand in the disposal of its own resources, while safeguarding the interests of the bondholders. He specially calls attention to the recognition by the French Government of the predominant position of Great Britain in Egypt, and their acknowledgement that it is not of a temporary character.

It is not necessary here to discuss the other subjects dealt with in the agreements between Great Britain and France. At the time of the Arabi rebellion and for many years afterwards public opinion in England was unmistakably opposed to prolonging the occupation of Egypt; and public opinion in France was as unmistakably anxious to procure our withdrawal. Happily for Egypt, the eminent statesmen who negotiated the recent agreements have recognised the force of circumstances, and have merited the approbation of both countries by evolving a practical solution

advantageous to all. The other Powers whose consent was requisite have raised no difficulties; and the incubus which has long weighed upon Egypt has been removed. No further questions are to be asked as to the date of evacuation. Cavillers may still harp upon the inconsistencies of the juridical position, and enquire whether we mean tutelage or protection. The answer is that His Majesty's Government have declared that they have no intention of altering the political status of Egypt. Externally, the Great Powers are content. Internally, those concerned may refer to Lord Granville's despatch, of which a quotation has already been given.

Herodotus informs us that the Oracle of Jupiter Ammon, in reply to an enquiry as to the boundaries of Egypt, pronounced that 'Egypt is the country watered by the Nile.' Thousands of years have since then passed away, but the definition is still exact. The line to which the fertilising waters can be made to reach marks the limits of the productive area. From the earliest times the attention of both rulers and subjects has been constantly directed to the utilisation of the great river upon which the very existence of Egypt depends. The *shadoof* and the *sakiyeh*—simple contrivances which enabled man and beast to lift water upon the land—formed, from remote antiquity, the adjuncts of cultivation; and these simple, cheap, and efficient machines are still to be found at work all over Egypt. Embankments and canals, implying the control of property and labour, were works whose execution lay with the rulers. Works of art in the shape of regulators, sluices, siphons, and the machinery connected with them, belong to modern times. To the French engineers, Linant, Mougel, and others, is to be attributed the initiation of hydraulic works of a scientific nature. The great Delta barrage was their conception; but, owing to an inadequate appreciation of the insidious force of the great river, to defective workmanship, and to the captious interference of the despotic Mehemet Ali, this monumental work proved to be incapable of sustaining the strain which it was designed to bear. The closing of the sluices was immediately followed by the development of subsidences, cracks, and failures in the masonry, which defied all attempts to remedy them at

the time; and, after an expenditure of 4,000,000*l.* sterling, the attempt to control the Nile was abandoned, and the Delta barrage remained as a stately bridge and a useless fortress. In that condition it stood until the Public Works Department came under British control.

Sir Evelyn Baring had long known the vital importance of irrigation to Egypt. In the position which he had last filled, that of financial member of the Viceroy's council, he had controlled the expenditure of India, including that of the Public Works Department, and had recognised the skill and devotion of the staff of that great organisation, and the success which had followed the scientific development of irrigation in India. To that body he looked to obtain engineers capable of advising and executing what was wanted in Egypt. Nor did he look in vain. The names of Colin Scott-Moncrieff, Garstin, Willcocks, Ross, Brown, Foster, Western, and Reid are now well known throughout the world for the astonishing changes which they have wrought in the development of Egypt under the masterful hand and fostering support of Lord Cromer.

The project of the barrage was excellent. Its practical execution was faulty, but its renovation was not impossible for experienced and resourceful engineers. This great work, above a mile and a half in length, crosses the head of the Delta some ten miles below Cairo, at the point where the Rosetta and Damietta branches diverge, and was intended to dam up the river at low Nile so as to ensure a perennial minimum flow of water through three great canals—the Behera, irrigating the land west of the Rosetta branch; the Menoufia, providing for the tract between the two rivers; and the Tewfikia, watering the country east of the Damietta branch. At the same time the sluices had to be capable of allowing the full discharge of the river at the time of highest flood, when over 13,000 cubic metres per second are passing, or about 10,000 in an average flood. The quantity discharged at low Nile falls to an average of 400 cubic metres per second, or, in exceptional seasons, as low as 200. The average maximum is therefore twenty-five times as much as the average minimum discharge. While at high Nile there is more water flowing through the river than is wanted, at low Nile the quantity is insufficient; and the function of a barrage is to store up a

portion of the excess and maintain the level of the water in the canals during the period of low Nile. The problem before the Anglo-Indian engineers was further complicated by the condition that the operations must not interfere with the existing supply, upon which the cultivable area depended. The work was undertaken with skilful foresight and carried out in successive years, during the season of low Nile, by the employment of various ingenious expedients. The result of the first year of operations was that the acreage of summer cultivation was doubled; and by 1900 the area had increased to 1,700,000 acres from the 600,000 which had produced crops in 1883. This extension of cultivation is profitable to every one concerned, the annual yield of land under perennial irrigation being worth from 5*l.* to 7*l.* an acre.

The primeval method of cultivation was to wait until the annual inundation had subsided and sow the seed in the moist mud. To this succeeded the system of basin irrigation, the basins being formed by earthen embankments dividing the strip of land lying between the river and the desert into compartments which could be filled and emptied at appropriate times during high Nile. These compartments were allowed to remain full for forty days, in which period the injurious salts were dissolved out and the fertilising sediment deposited. In years when the rise was insufficient the higher basins remained dry, produced no crops, and were not taxed. The sterile area amounted in bad years to as much as 1,000,000 acres, entailing a loss of 1,000,000*l.* to the revenue. By an improved system of canals, regulators, sluices, and drains the loss has been and is being greatly curtailed. Inundation cultivation, however, produced but one crop in the year, and was exposed to considerable dangers from neglect and causes beyond control. It was, besides, unsuitable for cotton and sugar, which require watering but not flooding. The final stage of regulation was perennial irrigation, which not only permitted the growth of the valuable cotton and sugar crops, but of one or two other crops besides, thus doubling the value of the land. As soon as this was realised by the rulers and large landowners, they became zealous to apply the profitable system to their own land—not, however, for the general benefit of the country, but purely for their

own advantage. Mehemet Ali and, in a greater degree, Ismail regarded Egypt as a private domain to be administered for their own personal profit, the labour being provided by their subjects. Large and influential land-owners took the same view. New canals were in their time constructed with a total disregard to any object but the enrichment of the Khedive and the favoured few; and the interest of the population at large was entirely neglected. The idea that a despot should be a benevolent ruler of his people, or that property has its duties as well as its rights, never entered into the mind of the rulers of Egypt or of the proprietary classes. The labour of the many supplied the essential water to the few.

On the surrender of the Khedivial property for the service of the debts incurred by Ismail, and the advent of the Anglo-Indian engineers, the evil, short-sighted, and corrupt methods of administering the irrigation service were soon swept away. It is indispensable that the control of the distribution of water in a country like Egypt should remain entirely under the control of the Government; and it is essential to the general prosperity that the control should be scrupulously equitable, and that no favour should be shown and no surreptitious advantages permitted. No one who remembers Egypt under the rule of Ismail, when *corvée*, *courbash*, conscription, and corruption reigned supreme, and who has again seen it under existing conditions—attained not without much opposition on the part of those who might have been expected to co-operate—can fail to be deeply moved by the immense change which has been wrought under the British régime, which has recently attained its majority, and is now free to continue its beneficent labours. Perennial irrigation is now a reality whose judicious extension is only limited by capacity of supply. The compulsory, unpaid labour of the *corvée*, by which the clearing of the canals and a vast number of subsidiary works were formerly executed, has been abolished by the substitution of paid labour. The *courbash* has been prohibited. Water is fairly and impartially distributed to the lands of the fellah and those of the bey.

Although the description of Lake Moëris given by the ancient historians proves that the construction of a reservoir, in which the excess of water at high Nile could

be stored to supplement the deficiency of low Nile, had actually been put into execution forty-six centuries ago, and was personally seen by Herodotus twenty-five centuries ago, that historian appears to have been more struck by the labyrinth and the great catch of fish in the channel connecting the reservoir with the Nile than by the utilitarian object of the lake. The problem in modern times arises from the fundamental condition that at low Nile there is not in the river enough water to go round, even though none be allowed to flow into the sea; and there can be no extension of perennial irrigation and no further reclamation of land until the minimum supply is supplemented. Nor must the flow of fertilising matter held in suspension in the flood be diminished by its deposit as silt. To meet these requirements Sir William Willcocks, after mature preliminary examination, designed the great dam across the river at the first cataract, immediately above Assouan. The original project would have submerged all the temples on the island of Philæ. Public opinion supported the archæologists against the utilitarians and procured a great reduction in the height of the dam, a decision which hereafter may have to be reconsidered.

The dam has 180 sluices, capable of allowing the maximum discharge at highest flood to flow through. During that period of the year all the gates are open, approximately, for the months of August, September, October, and November; and the dam is merely a long bridge through which flow in every second from ten to fifteen thousand tons of water.* As the flood subsides the sluices are gradually closed, until, by February, the water held up by the dam reaches its highest level, or about 65 feet above the lowest. The volume thus stored up amounts to between a thousand and twelve hundred millions of cubic metres or tons; and the effect extends 140 miles up the river. Then supervene the four months of low Nile, March, April, May, and June, during which the discharge falls from about 1200 tons per second to 400, or, in very low years, to 200 tons per second at the end of May—the last figure being disastrous to cultivation.

* A cubic metre of water weighs a ton.

In twenty-four hours there are 86,400 seconds, so that the discharge of 100 tons per second means 8,640,000 tons per day. The water stored up in the reservoir would, at this rate, last for 115 days, or the whole of the low season. But it is only urgently required when the Nile is extremely low, yielding only from 200 to 300 tons per second. This discharge might be supplemented by another 300 or 200 tons, so as to bring it up to 500 tons per second for about 50 days. The reservoir, therefore, affords an absolutely trustworthy insurance against very low Nile, which occurs about once in five years, and, under former conditions, meant a certainty of loss to all concerned. In ordinary years the water stored by the Assouan dam affords the possibility of converting nearly 1,000,000 acres to perennial irrigation and increasing the value of the produce by about 2,500,000*l.* sterling, which is about cent. per cent. upon the cost of the work. It will naturally be asked, How was this money found? The Egyptian Government could not touch the accumulated reserve, could not borrow without the consent of the Caisse, and could not raise money for annual expenditure without an increase of taxation equal to double the amount wanted, for half the amount raised would go to the Caisse. The solution was discovered by Lord Cromer. Sir E. Cassel found the requisite 2,000,000*l.*, and agreed to repayment by a deferred annuity for thirty years, commencing in 1903, the year following the completion of the reservoir by Sir John Aird. The direct annual gain to the revenue is 378,000*l.*, the annuity being 156,000*l.* The net profit of the Egyptian Government is therefore over 200,000*l.* per annum.

Simultaneously with the construction of the Assouan dam, two important works were undertaken in order to co-operate with it. At the head of the Ibrahimiyah canal has been built the Assiout barrage, and at midway between the Delta barrage and Damietta the Zifta barrage, at a cost of about 900,000*l.* for the former and 500,000*l.* for the latter. Both are already remunerative. Besides these great works for getting water on the land, a no less important feature in the work of the engineers, and one which had, until their advent, been much neglected, is getting the water off. More than 600 miles of drains have been added to the already enormous number

of water channels in Egypt; for every irrigating canal requires a drain as its complement.

There is still a vast field for further reclamation in the Delta; but it cannot be undertaken until the supply of water under control has been increased. For many years this question has occupied the attention of the Anglo-Indian engineers; and so recently as August in this year there has been presented to Parliament a fresh contribution to the voluminous literature upon the subject in the shape of a report by Sir William Garstin on the basin of the Upper Nile.

Lord Cromer, under whose fostering hand the development of all branches of the administration has been encouraged and controlled, reviews the proposals in a covering despatch to Lord Lansdowne, which tersely and lucidly explains the situation. It may seem almost a work of supererogation to remark that the very table of contents of this compendious collection, comprising as it does the whole of the great lakes and rivers which feed the Nile, demonstrates the indispensable necessity of unity of control over its waters. In the treaty with Abyssinia of May 15, 1902, it is provided that no work shall be constructed across the Blue Nile, Lake Tsana, or the river Sobat, except by mutual agreement. It is not, however, in contemplation at present to regulate Lake Tsana. All the rest of the country watered by the Nile is in British or Egyptian hands. It is calculated that between three and four thousand millions of cubic metres of water over and above the present summer supply, including the Assouan reservoir, would suffice for all Egyptian requirements; but to this must be added the needs for the development of the Soudan. Sir William Garstin's estimate for further works connected with the Nile amounts to 21,000,000*l*.

Lord Cromer holds that the aim of the Egyptian Government should be to work gradually up to this programme; but he adds that only a part of it requires early treatment, and that railways must share in the expenditure, notably the completion of the line from Souakin to Berber, the execution of a line along the Blue Nile to Wad Medani, and the refitting of the Egyptian railways. He gives prominence to the works for introducing perennial irrigation into Middle Egypt and for raising the

Assouan dam so that it may store another 1,000,000,000 of cubic metres, and to the remodelling of the Rosetta and Damietta branches of the Nile. In the more remote future Lord Cromer places an important but costly project for obviating the enormous waste which the Nile is subject to by its passage through the Sudd region, where from 50 to 80 per cent. is lost through dispersion and evaporation. The remedies proposed are the excavation of a perfectly new channel, or the adaptation of the derivative Bahr-el-Zaraf. The regulation of the lakes, the formation of a reservoir at Rosaires, a barrage on the Blue Nile, a canal system for the Gezireh, the regulation of the River Gash, weirs between Assiout and Keneh, and a reservoir in Wady Rayan, are also discussed. These projects, as Lord Cromer says, are sufficiently ambitious for the present. He will provide a large sum for additional staff to study the various projects, which are of such magnitude as to impose the policy of *festina lente*. Sir William Garstin remarks that, even if the money were available, it is scarcely possible that these works could be executed under a period of ten to fifteen years under the most favourable circumstances. When the whole of his scheme is completed he estimates that in Egypt 750,000 acres will be converted from basin into perennial irrigation; that 100,000 acres will be made capable of being irrigated by pumps; that 800,000 additional acres will be brought into cultivation; and that, at very moderate rates, the increased revenue to be derived from taxation will be 1,205,000*l.*E. a year.

In the Soudan 1,000,000 acres will be brought under cultivation, the return of which in land-tax will be 500,000*l.*E. a year—a sum which will render that country, for so many years a burden upon Egypt, self-supporting. Lord Cromer anticipates that the Souakin-Berber railway, which will cost 1,750,000*l.*E., will be open by the spring of 1906. The construction of that line will afford a new and shorter outlet for the produce of the Soudan. Berber is about 330 miles from Souakin by the alignment of the new railway, and 1400 miles from Alexandria. The length of the latter route is practically prohibitive for goods of small intrinsic value, but it has long been used for ivory, ostrich feathers, gum, and other valuable produce, which passed through the hands of the merchants of Lower

Egypt, whose interests were therefore opposed to the construction of the line to Souakin. When this line is open, both imports and exports will receive a considerable impetus from the diminished cost of transport; and cereals, cotton, sugar, coffee, coal, petroleum, hardware, textiles, and fancy goods will afford abundant occupation for it. The maritime trade passing northward from Souakin will, however, have to pay Suez Canal dues, which amount at present to $8\frac{1}{2}$ francs per ton, as well as the Egyptian customs at Souakin. As Lord Milner says,

'any improvement in his water supply is a thing which goes straight home to the heart of every Egyptian. It is the one sort of benefit which you can confer upon him of which the value is not only indisputable but universally recognised. The most successful, the most creditable, and the most unquestionably useful of all the services rendered by our country to Egypt have been connected with this vital problem of water.'

Among other material improvements which have been made during the period of our occupation, means of internal communication occupy a conspicuous place. The Nile valley railway, which formerly terminated at Assiout, has been extended to Assouan, or rather to Shellal, whence a regular service of steamers runs to Wady Halfa. From that place the Soudan military railway, one of Lord Kitchener's brilliant conceptions, runs across the Nubian desert to Abou Hamed, and thence to Khartoum, a distance of 575 miles, which is now traversed in from twenty-eight to fifty hours. The rapidity and economy with which this line was constructed, under the direction of Sir Percy Girouard (since then so conspicuous in South Africa), has probably never been exceeded. For more than four months it advanced at the rate of more than a mile per day—not a light line, but solidly laid with fifty-pound rails, for powerful, heavy engines, some of which can run 240 miles without watering. The earlier line from Wady Halfa to Kerma, near Dongola, was also begun by Lord Kitchener, in connexion with the Dongola expedition in 1897. It will probably be continued along the river to Abou Hamed.

In Lower Egypt it had long been a grievance to those concerned that Port Said had been kept in the background. When we came to Egypt, not only was there

no railway communication, but the water supply was restricted to the outflow of a couple of iron pipes which ran along the banks of the Suez Canal from Ismailia. There was an apprehension that Alexandria might be supplanted by Port Said; and this engendered a passive resistance to the removal of any disabilities—a resistance not disapproved by Egyptian Ministers. However, in 1884, an arrangement was made for the construction of a small sweet-water canal from Ismailia to Port Said. In 1891 the Egyptian Government consented to a narrow-gauge steam tramway; and in 1902 it was agreed that this should be transformed into a line of standard gauge, in connexion with the Egyptian railways, at the cost of the Suez Canal Company. The line will be completed this year; and Port Said will take its proper place as an Egyptian harbour. The rivalry of Alexandria is ceasing for want of further space there; and it is not improbable that branch establishments will grow up at Port Said as the port is extended. This work is now in progress; and the great discomforts to which the very important passenger traffic at Port Said has long been subjected will soon be removed. The Suez Canal Company has already sanctioned improvements which will very greatly increase the accommodation and facilities of the port. As feeders to the main lines, a considerable network of light railways has been constructed by various companies in the Delta and in the Fayoum; and a large mileage of agricultural roads has been made on which the wagon and the cart supersede the ancient pack transport on the camel and the donkey.

In the class of administrative reforms, great and necessary ameliorations have been introduced in almost all departments of the state—public security, police, justice, prisons, education, sanitation, and last, but most important, finance. When we consider that Egypt has been under the rule of Islam for over 1200 years, and that Cairo was the seat of the Khalifs for half that long period, it will occasion no surprise that the institutions of the Mohammedan religion are deeply rooted there, or that the teachings of the Koran and the manners and customs of the 'Thousand and one Nights' still permeate the life of the people. While Christians recite with apathetic concurrence the exaltation of the humble and

meek, the downfall of the mighty, and the favours of a chosen people, these beliefs still have a living reality for the Faithful. They regard the Sacred Law, which regulates marriage, inheritance, property, and a multitude of details of conduct and observance in their daily lives, as hallowed ground upon which it would be impious for the infidel to tread; and Moslems were content to let the Christians regulate their own affairs under the Capitulations and the Consular Courts, which in many cases were employed more to support political aims than to further the administration of justice. The Capitulations conferred upon the subjects of the Powers, *inter alia*, exemption from local jurisdiction, inviolability of domicile, and immunity from many taxes; all which privileges have been, in many cases, scandalously abused in sheltering criminals from arrest, preventing the recovery of stolen property, protecting the introduction of smuggled goods, or enabling gambling, immorality, and insanitation to defy control. It need hardly be said that no imputations of this sort can be alleged against the British Consular Courts. Between the Capitulations and the Sacred Law civil jurisprudence had hardly any existence until the International or Mixed Tribunals were established, mainly by the exertions of Nubar Pasha, in 1876. These courts had jurisdiction in suits between persons of different nationalities, including the Egyptian Government; and the majority of the judges were foreign. Though not free from objections, these tribunals commanded respect and confidence, and were soon resorted to by native Egyptians by the expedient of introducing a foreigner in some way into the suit—convincing evidence that their administration of justice was appreciated.

Early in 1884 Sir Benson Maxwell, a distinguished Indian judge, was appointed adviser to the Ministry of Justice; and native courts were established. After Maxwell, Sir Raymond West acted as adviser for a short time. In 1890 Sir John Scott, by moderate and judicious improvements and careful supervision, brought the native tribunals to a respectable degree of efficiency, and opened the prospect of raising them in the future to such a position that both the Consular and the International Courts might be dispensed with. That point has not yet

been reached, but considerable progress has been made. Codes and procedure are being evolved on civilised models; legal education is producing capable lawyers and judges; and the realisation of the project is recognised to be within the sphere of practical politics. But, in Lord Cromer's opinion, the time is not ripe for any organic changes.

In the Soudan there are no Capitulations, no Consuls, no Caisse de la Dette, and no Mixed Tribunals. The country is governed by a benevolently administered martial law, while a suitable system of civil and criminal codes and procedure is being evolved. The Cadi or judge who administers the Sacred Law is now a salaried official. His jurisdiction has been safeguarded; and his education in the future is provided for by the new training departments of the Gordon College at Khartoum, which is already diffusing wisdom and educating teachers for the schools which are being founded throughout the country. Many of the aboriginal tribes are purely pagan and altogether illiterate. For them the personal supervision of the benevolent despot is infinitely more suitable and more acceptable than any premature attempt to introduce laws whose aims and even whose justice they must long remain entirely incapable of appreciating. Most of the administrators of the Soudan are British military officers in the Egyptian army. The innate capacity of these gentlemen for positions of responsibility entailing the most various duties, and the admirable manner in which they perform them, reflect credit upon the race they spring from, the system in which they have been trained, and the commanders under whom they have served—Evelyn Wood, Grenfell, Kitchener, and Wingate, who have succeeded one another in the position of Sirdar.

The growth in efficiency of the Egyptian army under English officers is best evidenced by its deeds, which may be found set forth in Mr Charles Royle's 'Egyptian Campaigns,' interspersed with much other valuable matter concerning the military operations in Egypt from 1882 to 1899, which space forbids us to dwell upon. The disasters of Arendroop in Abyssinia, of Sinkat, of Mahmoud Talma near Tokar (when Captain Moncrieff was killed), of Sulie-man Pasha near Tamanieb, of Valentine Baker at El Teb, of Hicks Pasha near Obeid, of Khartoum and the Soudan garrisons, are sufficient to indicate that the military

forces of Egypt were formerly unable to face brave and fanatical barbarians at the period which preceded the reorganisation. Their subsequent exploits at Souakin, Argin, Toski, Firket, Dongola, Abou Hamed, Atbara, and Omdurman showed that a new spirit had been infused into them, and that, under competent instruction and leading, they could be moulded into reliable troops. In serious contests we have, however, found it advisable to add a strengthening of British soldiers.

At the time of our arrival in Egypt the prisons, lunatic asylums, hospitals, and sanitary services were inconceivably bad. Considerable progress has since then been made in remedying the evils and deficiencies, which are mainly of a nature inherent in the religion and customs of the people, whether Moslems or Copts. The former, indeed, are enjoined to perform ablutions before prayer; but the observance is merely a perfunctory ritual, and the general habits of the fellah are in flagrant violation of the most elementary sanitary rules. The same stagnant puddle furnishes drinking water and is contaminated by pollutions of every kind. It is not surprising that infectious and contagious maladies were propagated with rapidity. Among them may be mentioned ophthalmia, whose ravages in the past were very great, about half of the whole population having their sight impaired. Plague, cholera, typhus, enteric, typhoid and malarial fevers, and small-pox appeared from time to time as epidemics, and swept away enormous numbers. Perhaps the most frightfully insanitary district which it is possible to conceive was that part of Cairo which lay adjacent to the Khalig canal (now filled up), in which most of the ancient mosques were situated. In the cholera epidemic of 1883 this tract enjoyed a relative immunity, it being said that every one susceptible to any sort of infection must have died long before the outbreak. In the mosques a supply of pure water has been laid on to replace the basins, which were little removed from cess-pools. Waterworks have been constructed for the supply of several towns. Remarkable success has attended the remedial measures suggested by the discovery that malarial fever was propagated by mosquitoes. At Ismailia, where it had raged for many years, and few escaped its attacks, the Suez Canal Company, which has pre-

dominant authority there, on the advice of Major Ronald Ross, took measures for the extirpation of the breeding grounds of that pest by filling up stagnant pools, spreading a film of petroleum over such stationary water as remained, and enforcing simple and salutary rules as to the use of quinine as a prophylactic. The result has been marvellous. Mosquitoes and malarial fever have disappeared; and the general health of the town has greatly improved. Elsewhere, hospitals, dispensaries, and sanitation have extended under Dr Sandwith, Dr Milton, Sir John Rogers, and Sir Horace Pinching; and recent epidemics have not been able to attain the magnitude which formerly characterised them.

Education of a very primitive and elementary kind had long been confined to the mosques and kattabs, in which the learning by heart of some extracts from the Koran—whose language differs so much from the vernacular as to be unintelligible to the majority—formed the principal subject of instruction. Public instruction is now recognised as a branch of the government; and the schools are conducted on sound principles, French and English being taught as the vehicles for acquiring that wider knowledge of which Arabic does not even furnish a vocabulary. Law, medicine, engineering, agriculture, and technical subjects are taught in colleges; and an impetus is given to their acquisition by the establishment of examinations for entry into the public service, thus substituting the principle of appointment by merit for the old system of appointment by favour. Training colleges for teachers have been established; and their influence will permeate into the village schools. The progress made in the last twenty years is very noticeable in every branch of life; but the rate of expansion will depend upon what the finances can afford.

It will be recollected that Lord Dufferin devised, in 1883, a constitution for Egypt embodying representative institutions in the form of a Legislative Council and a Chamber of Notables. The former, on which fourteen out of thirty members are nominated by the Government, meets once a month. It is not empowered to initiate legislation, and the Government is not bound to accept its views. Many of its proposals have been useful and practical; sometimes, however, they have been extra-

ordinarily grotesque. The Chamber of Notables consists of forty-six members popularly elected, besides the Ministers and Legislative Council. It has no legislative functions; but no new taxes can be imposed without its consent, which has not hitherto been required in any notable cases.

These representative institutions, though still in their infancy, will have the effect of training the upper classes of the Egyptians to gain an intelligent comprehension of the conduct of public affairs; and the establishment of self-governing municipalities will conduce to the same end. In the same connexion the devolution of authority to the Mudirs or provincial governors, to the police, to the Mamours or sub-governors, to the Omdehs or heads of villages, and to the Ghaffirs or watchmen, has been systematised and their supervision provided for, with a marked increase in the public security, a diminution in corruption and oppression, and assured position and emoluments to those so employed.

Our occupation commenced in the reign of the Khedive Tewfik, who was fully conscious of his father's extravagances, had felt the vicissitudes of the Arabi rebellion, and had been restored by British bayonets. Tewfik Pasha kept whatever aspirations he may have had for personal control in the background, submitted gracefully to the rôle of reigning without governing, and earned general respect and popularity. On his untimely death, which was a misfortune to Egypt, his son Abbas Hilmi was recalled from his studies at Vienna to take his place.

Now, although we can hardly dignify them as political parties, there are in Egypt various bodies, such as the Nationalists, the Young Egypt party, the fanatical Moslems, who profitably exploit the protection afforded them by the Capitulations, and others, who have this in common, that they resent control, desire that sort of liberty which would enable them to oppress others, and prefer being badly ruled by their own party to being well ruled by any foreign influence. When Abbas Hilmi succeeded to his inheritance, his aspirations for independence and his conceptions of patriotism led him to sympathise to a considerable extent with these parties and to adopt a somewhat recalcitrant attitude towards the occupying Power, which was evidenced by several incidents not now

necessary to recall. He had to be reminded by Lord Rosebery that in all important matters, such as the formation of his ministries, he must act with the knowledge and approval of the British authorities; and it was made perfectly clear to him that the position of Viceroy of Egypt, while in British occupation, was subordinate to the authority of the occupying Power. Since then the relations between the Khedive and the British authorities have been harmonious; and his Highness no doubt now understands that the security and prosperity which the country enjoys are due to the special efforts of a single nation, and that the various great works which have transfigured the face of the country and raised it to undreamt-of prosperity would never have been initiated, and could never have been completed, by any of the reactionary elements in the land. Nor will he fail to recognise that a relapse into the former system of autocratic oriental government would, in a brief space, reproduce the old abuses and nullify the reforms which have been introduced. We shall continue to look forward to the time when Egypt can govern herself, but we must admit that we have vastly underestimated it in the past, and that for many years the 'masterful hand' of the Resident must continue to guide her destinies.

Egypt was densely populated in ancient times. In the reign of Augustus there were 18,000,000 of inhabitants; at the time of the Arab conquest, half that number; at the date of the expedition of Napoleon, 2,460,000; at the first official census in 1846, 4,463,000; at that of 1882, 6,806,000. The census of 1897 shows a population of 9,734,000, or an increase at the rate of about 3 per cent. per annum during the period of British occupation. In the same period, under the tyranny of the Mahdi and the Khalifa, Sir Rudolf Slatin estimates that three quarters of the population of the Soudan perished. There remained but 1,870,500 inhabitants in a territory of 1,000,000 square miles; and the progress of the country will long suffer for want of hands.

The finances of Egypt, under the general control of Lord Cromer and the supervision of Sir Auckland Colvin, Sir Edgar Vincent, Sir Elwin Harvey, and Sir Eldon Gorst, have undergone continual and consistent improve-

ment. While the revenues have increased, the burdens of taxation have decreased. The area of cultivated land has risen; its produce has been increased by the extension of perennial irrigation; its value, whether for purchase or rental, has largely augmented; and the average tax per acre has fallen 20 per cent. The incidence of taxation, being spread over a largely increased population, has fallen 25 per cent. per head. Compulsory gratuitous labour in the shape of *corvée* has, so far as possible, been abolished: 281,000 men were called out in 1881, and only 11,244 in 1893. The debt attained its maximum in 1891, when the amount in the hands of the public reached 105,609,100*l.* It now stands at 93,383,000. Reckoned per head of population, the indebtedness has fallen from above 14*l.* to below 10*l.*, and is annually decreasing. The interest charges on the debt amounted to 4,235,921*l.* in 1881, when the revenue was 9,000,000*l.* They have now fallen to 3,719,503*l.* out of a revenue amounting to 11,500,000*l.* in 1904. Within the last eighteen years a sum of 8,000,000*l.* has been expended out of revenue upon reproductive works of irrigation.

Imports and exports together were valued in 1882 at 17,417,100*l.* By 1903 their value (35,265,400*l.*) had more than doubled, irrespective of tobacco, which now brings in more than 1,000,000*l.* to the Treasury. The British share of the trade is about one half the whole, and the French one tenth. At Cairo and Alexandria the octroi duties, which brought in about 200,000*l.* a year to the Government, have been abolished, with the singular result of a rise, in place of the anticipated fall, in the price of provisions, thus showing that this artificial barrier unduly depreciated prices below their natural level and weighed heavily on the producer.

Agricultural banks have been established, guaranteed by the Government, and authorised to lend up to 500*l.* on landed security at 9 per cent., a rate of interest which, though it may appear high, is vastly less than that formerly demanded by the local usurer. The experiment proved successful. At the end of 1902 the outstanding loans exceeded 1,000,000*l.*; at the close of 1903 they exceeded 2,000,000*l.*

The lands of the Domains and Daira administrations (which were surrendered by Ismail to the Government)

are being gradually sold—generally in small plots averaging sixteen acres; and the sugar factories have also been disposed of to a corporation for a sum of 850,000*l*. The proceeds are applied to the reduction of the debts which were secured upon them to the amount of 18,000,000*l*. This indebtedness has already been reduced to 7,000,000*l*.

The tolls formerly payable for the navigation of the Nile and the canals have been almost entirely abolished. They had been imposed with a view of diverting the transport traffic to the government railways. The number of cargo-boats has greatly increased, and they act as feeders to the railways.

The various government administrations, comprising railways, telegraphs, posts, lighthouses, ports, and hall-marking, bring in a total revenue of 2,740,000*l*., and involve an expense of 1,506,000*l*., leaving a net profit of 1,234,000*l*., which will shortly be at the disposal of the Egyptian Government. The farming of the fisheries, which had existed from remote antiquity, has been suppressed, and a simple boat-tax substituted, which sits lightly on this large industry. Post-office savings banks have been established; and the Grand Mufti has pronounced an opinion that the participation in profits which the investors enjoy is not contrary to the religious laws against usury. It is hoped that this measure will bring a large amount of hoarded money into circulation. In the last five years the imports of gold have exceeded the exports by more than 12,000,000*l*.; and this vast sum is withheld from circulation owing mainly to religious scruples as to receiving interest.

This long review of beneficent administration might be considerably extended; but sufficient has been said to prove beyond any cavil that the prosperity of Egypt and the Egyptians has increased by leaps and bounds since the period of British occupation, in spite of much harassing opposition. To those who have witnessed the extravagance, the waste, the oppression, and the corruption of the days of Ismail; who have watched the dawn and the development of wise, prudent, honest, and equitable administration; and who have returned to see the extraordinary metamorphosis which the country, the

cities, the towns, and the villages have undergone in the last twenty years, there can be but one conclusion—that the British have performed their task well.

After giving every credit to the brave soldiers, the able administrators, the skilful engineers, and the other men of energy and resource who have co-operated with him—as Lord Cromer throughout has liberally and generously done—the broad fact remains that, for more than a quarter of a century, he has been the moving spirit, the central figure in this admirable transformation. That no changes in our system of party government should have impaired in any way the confidence reposed in him by the successive occupants of the position of Foreign Secretary is a fact which reflects equal credit on the judgment of our statesmen and on the capacity and tact of the pilot who has steered with such uniform success through so many storms, and who has chosen to abide by his post and carry on the great work which none but he could have performed so well, rather than accept the higher positions which were offered to him and the easier duties which they entailed.

The motto of the Barings is 'Probitate et Labore.' Surely no words can more appropriately describe the long career of devotion to the public service which has earned for the Earl of Cromer the honours and dignities he enjoys. But the public is not fully aware of the magnitude of the debt which they owe to the man who by his far-sightedness, discrimination, and unerring judgment, by his imperturbable serenity and moderation, and by his resolution and persistence, has surmounted the innumerable difficulties that stood in the path along which he has guided the destinies of Egypt from misgovernment and bankruptcy to order and prosperity.

This work of many years has now been happily crowned by the *entente cordiale* brought about by His Majesty and Lord Lansdowne with the French Republic. We have reason to hope that this auspicious agreement will furnish a new point of departure for a still more prosperous future, and for the removal of the anomalies and disabilities which still survive.

Art. X.—FATIGUE.

1. *Fatigue*. By A. Mosso, Professor of Physiology in the University of Turin. Translated by Margaret Drummond, M.A., and W. B. Drummond, M.B. London: Swan Sonnenschein, 1904.
2. *Weariness*. The Rede Lecture, delivered in the University of Cambridge, 1893. By Professor Sir Michael Foster, K.C.B., 'Nineteenth Century,' September 1893.
3. *Remarks on Replies by Teachers to Questions respecting Mental Fatigue*. By Francis Galton, F.R.S. 'Journal of the Anthropological Institute,' vol. XVIII, 1889.

FATIGUE is a phase of life to which few are strangers. That which the word denotes is an experience only too familiar to most persons, but in varied character and degree. It is a feature of perfect health, and yet is a link with disease, since it is produced with undue readiness in morbid states, and in some it constitutes a conspicuous symptom. Not only is it varied in its manifestation, but it has many-sided relations; and some of these involve considerable scientific interest. As a result of activity in the normal state, it is a part of physiology, the study of the living body in health; and as such it has been recently made the subject of much research, which has resulted in discoveries of considerable importance. It is a difficult subject for investigation, for reasons which will presently be mentioned; and it is curious that the study it has received has been chiefly at the hands of Italians. That nation has shared conspicuously the impulse to scientific research that has recently affected all civilised peoples, and has extended even to the state that is now so prominent in the eyes of the world—Japan. Italy has grand traditions to inspire her; and the degree in which she excelled in the study of life three centuries ago may have inspired the noteworthy work in physiology which her sons have lately achieved.

Contagion is not confined to disease; it is manifested also in tendencies of thought and work. The special study that has been given by Italians to the subject of fatigue seems chiefly due to the fact that one of their best known physiologists, Professor Mosso, has made it for many years a favourite subject of investigation. He has

published the results of his work in many papers, and has condensed them in a small volume designed for popular consumption, which has been translated into English. But fatigue is largely a feeling, a fact of sensation; and our meagre knowledge of the processes which underlie its sensory phenomena was admirably described by Sir Michael Foster in his Rede Lecture on 'Weariness,' given before the University of Cambridge. This lecture is a remarkable example of the use of simple, apt language to describe recondite scientific facts.

It is curious that a fact of life so keenly and generally felt as is fatigue should have received systematic study only in recent years. The cause of its neglect becomes perceptible when we discern how little even the latest research can teach us of the nature of weariness, how little science can add to that which every one knows by experience. We may find an inkling of this in the words we use to designate the condition. The word 'fatigue' and all its synonyms, 'tiredness,' 'weariness,' 'exhaustion,' and the like, are positive terms. They are designations of the definite sensation which attends over-exertion. Yet, when we think of fatigue and exhaustion, we think of the inability for further exertion which accompanies the sensation quite as much as of the sensation itself. There are thus two sides to our perception of fatigue—a positive side, the sensation of weariness, and a negative side, the diminished power of exertion. Each is prominent in our thoughts. When we speak of being 'tired,' we mean, generally, that we cannot go on with the effort; yet only the definite sensation finds expression in our words. 'Exhaustion' is the nearest approach to a distinctly negative term we use, but this is really positive. The fact is, indeed, an illustration of the way in which all sensations dominate our thoughts and the words which convey them. Our feelings are the most definite realities to our consciousness; they govern our language and often exert a strong influence on more than our words.

Unfortunately for science, feeling or sensation for the most part eludes our grasp. The actual sensory functions of the nerves can be tested—the sensitiveness of the skin to touch or pain, of the auditory nerve to hearing, of the eye to light and colour; but the multitudinous sensations of which the brain may be conscious elude the

methods of scientific research even in its latest elaboration. They cannot be described in words, for our feelings altogether transcend the capacities of language; and only similes can be used, which mislead rather than inform. To this class of uncomprehended sensations belong those which are caused by over-exertion. The 'feelings' of fatigue constitute an obstacle to exertion often insuperable, but their purely subjective nature makes their scientific investigation almost impossible. That which is only felt cannot be recorded, and eludes the precise observation that is necessary for accurate study.

Hence the only aspect of fatigue which is open to research is its negative nature, the diminished power which results from over-exertion. The fact that strength is lessened by continued effort, even in moderate degree, is a matter of familiar observation. Animal life sometimes affords us striking examples; and one pertinent instance is the utter exhaustion of migratory birds when they have had to fly against an adverse wind. Birds vary much in their power of long flight; and the distance travelled by swallows and swifts is less marvellous than that covered by birds such as quails, which seem to have no great strength of wing, and yet are migratory. On reaching land they are often scarcely able to move; and many fail, simply from exhaustion, to reach the shore. Carrier pigeons, which have flown long distances, present the same symptoms of exhaustion; and the effect of over-work has been found by Mosso to be shown in them by increased temperature, and even by an altered colour of the muscles which move the wings.

But such observations are not definite enough for modern science. The influence of muscular exertion can be observed, measured, and recorded with precision. The aid which mechanics have given to the study of life is remarkable. It is not a jest, but a sober fact, to say that the science of physiology has been revolutionised by a revolving cylinder. Moved by clockwork at varying speeds, this simple apparatus has opened up a range of precise observation which has almost transformed the investigation of vital phenomena. To those who know anything of physiological science, the use of such an apparatus is so familiar that they have perhaps never thought of what physiology would be without it. But, if

the knowledge gained by its means could be eliminated, that which remains would be little more than was perceived fifty years ago, except in the domain of the chemistry of life. It is, indeed, strange how deep a debt physiology owes to simple mechanics.

For those who are not familiar with practical physiology it may be said that the cylinder is covered with paper blackened by the soot of such a smoke as is given off by burning camphor. On this black surface, as the cylinder revolves, a white line is traced by a point attached to a lever; this lever magnifies, perhaps a dozen times, the movement to be recorded. The cylinder, about two feet in circumference, may be made to revolve once a minute or oftener, even once in a few seconds; and any process which can cause a movement can thus be made to record itself in the variation of a definite line. Two processes can be made to produce a record at the same time; and thus the interval which separates them is revealed, although it may be far smaller than could be distinguished by the eye. If twenty-four inches of paper pass beneath the writing points in a second, a difference in space of one tenth of an inch will correspond to one 240th of a second, a period far too short to be discerned by the eye. Moreover, to aid the comparison of space and time, the science of acoustics is called into service. Every tuning-fork vibrates a definite number of times in a second. It may be made to record its vibrations on the cylinder while the observations are made; and thus an absolute measure of time is written simultaneously on the blackened surface, which indicates, with perfect certainty, the interval of time to which a given space corresponds. By this means facts have been ascertained regarding every process of the animal body which can produce a movement. Even the rate of the transmission of a nerve-impulse has been measured. Although a touch, and the feeling it produces, seem simultaneous to the most careful observer, they are found to be separated by a large fraction of a second.

By an ingenious contrivance, which he calls the 'ergograph,' Mosso has recorded the strength exerted by the muscles which bend one of the fingers. If a weight is attached to the instrument, the exhaustion of the muscles on successive contractions can be ascertained and indicated

by the height to which the weight is raised; and this is recorded by the tracing of the lever. The gradual diminution of the strength which can be exerted, slow or quick, according to the various conditions of the body, is presented in a large series of diagrams in Mosso's book. The diminution occurs equally, whether the muscles are set in action by the will or are stimulated by an electrical shock to the nerves. The features of their exhaustion have been studied more completely by experiments on animals, in which, indeed, Mosso was long anticipated. The frog is a convenient agent for such observations, because it will go on living for a long time after being killed. The statement may seem somewhat Hibernian; but the division of the spinal cord from the brain does not end life at once, as it would in a higher animal. The heart continues to beat and the muscles to contract, although the brain cannot act on the body, and no sensation can reach the brain. This fact is extremely convenient for physiologists. They can study many of the facts of life, and yet know that they are causing no pain, and that the will of the subject does not influence the facts they observe.

One of these facts is perhaps the most important that has been ascertained regarding the exhaustion which accompanies what we call fatigue. If the muscles of the leg of a frog, thus deprived of conscious feeling, are stimulated by electricity so as to cause contractions in quick succession, these steadily diminish in strength. The height to which the attached lever rises diminishes rapidly, as is shown by the tracing which it records on the cylinder. The diminution goes on until the contraction no longer occurs. The same electrical current passed through the nerve, which at first produced energetic movement, no longer causes contraction in the muscle. If, then, the artery of the limb is divided and distilled water is injected until it flows out freely from the veins, muscular contractions can again be obtained, and they continue for a short time. The significance of this fact is clear. Distilled water cannot renew the contractile elements of the muscle. All that it can do is, so to speak, to wash out the muscle. Hence it is certain that the cessation of the contractions, under rapid stimulation, is due not only to exhaustion of the muscle, but to the presence of something

which hinders the response and can be removed by simple irrigation.

This fact makes us consider more closely what occurs in the muscle when it contracts. The manner in which these wonderful fibres of the muscular substance shorten and widen under a stimulus, is a marvel of which we understand but little. An impulse comes to them through the nerves—an impulse which may be produced by the will or generated by an electrical stimulation of the nerve; and the fibres with one accord become broader and shorter, drawing together the ends of the muscle and thus moving whatever is mobile to which the muscle is attached. By this simultaneous action, united in the vast number of fibres that compose a muscle, these microscopic bands exert a force that is marvellous. The single fibres are far too small to be visible to the naked eye, yet they are so disposed as to pass into synchronous contraction, and furnish a striking example of the way in which number replaces size. Indeed, multiplicity is size. Yet it needs an effort to comprehend that a collection of fibres, each comparable in dimension to a gossamer thread, just visible as it floats in the sunbeams, should be capable of raising half a hundred-weight or more.

Whence comes the energy thus exerted? The question may be unnecessary; the answer may be well-known. Yet upon it depends in part our explanation of fatigue. That force which moves a weight cannot arise *de novo* is now a matter of common knowledge. It can only be produced by being transformed, by undergoing a change in its relation to matter. Radium, indeed, gives a startling shock to our conceptions, but we are beginning to perceive that it does not really disarrange our old ideas, whatever it may add to them. We can still trust our old conclusions as to the source of muscular energy. Atoms form closer combinations. In the muscle, before it contracts, they are held apart by interatomic motion, minute in degree but vast in total amount, in the elaborate compounds of which muscle consists, and also in the oxygen which comes in the blood to the muscles. When what we call a 'stimulus' acts on the fibres, the atoms composing them suddenly form closer compounds by means of the adjacent oxygen. This has a potent attraction for them, to which they could not yield until the

'stimulus,' as it were shaking them, set them free. Their closer union liberates the force which kept them separate. The mystery of muscle is that the released energy is so seized and united as to make the whole muscle shorten with a force proportioned to its size. We do not know how this combination of the energy released is effected; but we can see its analogy when coal-gas, mixed with air, is exploded in the cylinder of a gas engine. The atoms of coal-gas and of the oxygen of the air are kept apart by interatomic motion, 'latent energy'; the spark is here the stimulus which disturbs the balance; closer combination releases the energy, and the piston is moved, while carbonic acid and water result from the union of the atoms previously kept apart.

Between this process and that in the muscle there is a wide and unbridged gulf. Yet there is an analogy sufficiently close to be instructive. The carbonic acid formed in the gas-engine would extinguish any light placed in it; through it no other spark could pass. The combination of atoms in the muscle which releases energy produces substances that interfere with a repetition of the process. They are toxic to the muscle in so far as they hinder the process which causes contraction. They result from chemical union, less direct and less close than what we call 'combustion,' and yet analogous. But the process takes place in the living tissue; and life shrouds with its veil of mystery all that occurs within its domain.

The hindering effect of the products of muscular action is peculiarly instructive. We can understand that their removal, even by the agency of distilled water, may enable the muscle again to respond to a stimulus which reaches it; and we can understand that, if not removed, these products hinder, in all animals, the ability to maintain continuous effort. At the same time it must be remembered that another and perhaps the most potent factor in the decay of strength caused by over-exertion is the exhaustion of the elements of the muscles from which the energy is derived. Their renewal under the influence of life is speedy, but it needs time. The quick repetition of muscular exertion does not permit the living tissues to appropriate, in adequate degree, the elements presented to them; and thus exhaustion is induced, which is the essential cause of the failure from fatigue, although

its influence is accompanied, and to some extent anticipated, by the hindering effect of the products of action.

These facts enable us to understand better the sensation of fatigue, although their application has hardly yet been fully recognised by the students of the subject. They are of interest, also, as an example of the relation which one branch of science bears to another. Facts which seem isolated are found to be connected; one discovery may lead to another quite different in character. We all know that a prominent effect of over-exertion is true muscular weariness, a sensation experienced in the muscles themselves. As a feeling, this eludes investigation, as do all our pure sensations; but the discoveries of histology, the branch of science which is concerned with the minute structure of the tissues, enables us to form a definite conception of its place of origin. All sensations due to the muscles must be conveyed by the sensory nerves which belong to them. These are distinct from the motor nerves, which convey the impulses that excite contraction. The sensory nerves pass down to peculiar structures in the muscles, which have been thoroughly studied only during the last few years. The nerves terminate in peculiar long enclosures, tapering at each end, and bounded by a definite wall. These have received the name of 'muscle-spindles' from their pointed ends. Into each of these passes a contractile muscular fibre, which divides within the spindle; around it the nerve ends by a peculiar arrangement of its fibrils. These nerves, passing into the spindles, seem to be the only sensory nerves of muscles, the only nerves which can carry sensations from them. The probable explanation of the function of these structures is that the contraction of the contained muscular fibre generates in the nerve fibre, by pressure on it, impulses which correspond in intensity to the degree of contraction, not only of the fibre contained within the spindle, but of the whole muscle. It has, therefore, been suggested that they are of the nature of 'muscle-meters,' analogous to the meters of an electrical current, which divert a small portion, and estimate it, as an index to the strength of the whole. These nerves carry all impressions from the muscles which reach the brain. If a muscle is pinched, the pain is felt in consequence of the compression of these nerves; and it is also their com-

pression which gives rise to the intense pain of cramp. It must be through them that we receive the sensation of muscular fatigue familiar to every one as a result of over-exertion.

The fact, already noticed, that muscular action gives rise to a waste product which has a toxic influence on the fibres, affords a clue to the origin of this sensation of fatigue or weariness. The muscle-fibres within the spindles must contract with the rest of the muscle. Although motor nerve fibres have not yet been proved to pass within the spindle, yet the effect of stimulation passes along a muscular fibre, throughout its length; and thus the effect of the stimulation of the fibre outside the spindle must extend through the portion within it. The contraction here inevitably gives rise to the same waste product, with the same toxic influence. It is only through the sensory nerves of the spindle that the feeling of muscular fatigue can be perceived; and we may safely conclude that it is through the influence of the toxic product on the sensory nerve endings that the sensation of muscular weariness is produced, which so distinctly arises in the muscle. These products of muscular action can escape less readily from within the capsule of the spindle than from the rest of the muscle, and have thus a special opportunity of acting on the sensory nerves. We can therefore understand that the sense of muscular weariness persists so long after exertion has ceased. It probably lasts longer than the actual exhaustion of the muscle, in harmony with our experience that the sensation left by exertion endures after the power for renewed exercise has been regained. Such an influence may well be salutary, inducing rest until the nutritional capacity for energy is fully restored. Hence we can conceive that these muscle-spindles not only are 'muscle-meters,' informing the brain of the degree of contraction of the muscle, but also constitute a mechanism having the effect of a danger signal, giving warning of the need for rest, and keeping the signal up until the capacity is fully restored.

The facts of fatigue in the brain are less simple and far more difficult to investigate and understand. We cannot measure and record the power of the brain as we

can that of the muscles. Prolonged exertion is known to cause analogous disability, but it may be counteracted for a time by the strange power of the nerve elements to respond to powerful stimulation, at the cost, however, of ultimate greater collapse. Before considering the features of brain fatigue, it is interesting to note the connexion between muscular exertion and cerebral activity. Mosso mentions that birds at the end of a long migratory flight, when utterly fatigued, seem unable to see, or, at any rate, to perceive the nature of what is before them. They will fly against a house or rock or other object, and fall dead.

Apparently the effect of the excessive muscular effort is to lessen or abolish the sensory power of the cerebral centres. It is said that Alpine climbers sometimes remember very little of the incidents of the last part of a fatiguing ascent; in this case, however, other causes, as the state of the air, may co-operate. But it is easy to understand that prolonged muscular effort may cause grave interference with brain function. The products of muscular activity, which have such a restraining influence on the muscular fibres, pass readily into the blood, and reach all parts of the body, including the brain. The influence they have on the muscle is doubtless also exerted on the cerebral structures. The muscle substance more nearly resembles nerve tissue than does any other substance in the body; but that tissue exceeds muscle in sensitiveness to harmful substances. We can understand that the muscular products should have a similar, and perhaps greater, effect on the cerebral tissue, and that when the plasma which bathes the nerve elements is charged with these materials, the action of the structures of the brain should also be affected.

We should also remember that the muscles are excited to contraction by the brain; cerebral action is involved in all exercise, even in the work of the treadmill, and to a greater and wider degree in proportion as the muscular work needs mental supervision. School games, for instance, involve a wide range of brain activity. Most of the senses are called into action; comparison and judgment are needed, and the sources of nerve activity are more or less exhausted. The double influence of games, the demand on brain and muscle, and the hindrance to

each which results from the products of their action, enable us readily to comprehend the failure of the cricketer's dexterity after a long day's play, and the inability of the schoolboy to work well after hard exertion. Indeed this lesson is one of great importance. It is not reasonable to expect mental work to be well done after exhausting muscular exercise.

Of all the processes of nature that we can study, perhaps the most mysterious are those chemical changes which occur under the influence of life. There are very few rifts in the cloud that envelops and obscures this occult interchange of material, and the energy which waits upon it. At this we have already glanced in speaking of muscular action. Some investigators believe that all chemical change, when thoroughly known, may be found to be of quite other nature, and to consist really of electrical processes. But whatever discernment may come, with the growth of knowledge, concerning physical processes, these have little relation to vital action. Electricity in relation to life is as mysterious, as dim, as any other form of force. For definite knowledge we shall have apparently to wait, and to wait long—perhaps until we have learned whether there is such a thing as matter at all.

Meanwhile these processes which go on under the influence of life are recognisable by us only in dimly discerned outline, and in their definite results. We can perceive that all action of the nerve elements in the brain is attended by chemical change, just as is the activity of the muscular substance. The molecules composing them break up; atoms pass away in lower compounds, just as from the muscles. Energy, previously held latent, is released as nerve force, the mysterious form of energy which traverses the nerve fibres and stimulates the muscles to energetic contraction. Of its nature we know really nothing. We must conceive it to be a form of energy, most slight in absolute degree, but most potent in its effect on the susceptible structures. It is doubtful whether any measure of force is sufficiently delicate to express the degree of that which, passing down a nerve, will excite a large muscle to strong contraction. It may be no exaggeration to say that nerve force which, expressed in terms of motion, would raise a

milligramme (say a grain of salt) a millimetre high (i.e. through a space equal to the thickness of a postcard) would suffice to excite a muscular contraction that would raise a pound weight through a foot. So great is the disproportion between the two—between the energy of the excitant and the energy liberated through its influence. This nerve force is the most delicate of all the dynamical processes of life. It is easy to conceive that the structures that evolve it should be equally delicate in equilibrium, most readily excited, and also most readily hindered. They may thus be hindered by the presence of any substances that have a restraining effect, such as result from muscular activity, and especially by such as are formed by the action of the nerve tissue itself.

As with the muscle, so with the nervous elements; their action generates their own products hindering activity. These result from all action; in slight amount they have little influence, in greater amount they restrain. After great muscular exertion the influences of the two products, those of muscular and of nerve action, coincide. The greater delicacy of the higher structures makes them extremely sensitive to such toxic agents. The nerve substance is susceptible to many organic poisons; and this susceptibility varies even in different parts, between which our coarse methods of analysis can find no difference. Strychnia, which excites the spinal cord to intense activity, has no action on the pupil of the eye; but the pupil is widely dilated by the stimulus of a small quantity of atropin, even by the five-thousandth part of a grain, which has no influence on the spinal cord.

But in the nerve structures, as in the muscles, the exhaustion of the capacity for action must be regarded as the chief cause of the inability which brain-work itself entails. We cannot here measure the relative effect of the two influences—the exhaustion of the tissue power, which is the expression and result of true brain-fatigue, and its hindrance by the products of its own action; but one tangible proof of brain-exhaustion is afforded by the fact that brain-work lessens the power of maintaining muscular action. This fact is clearly shown by some of Mosso's observations with his ergograph. The strength of successive movements of the finger diminishes much more rapidly after energetic mental labour than

under normal conditions. This can only be ascribed to a lessened degree of the nerve energy which stimulates the muscles. It is not easy to understand how purely mental work should lessen the power of the nerve structures which have only a motor function; but the evidence that it does so is strong. We know, moreover, that the association of various parts of the brain is close. The motor and psychical functions are intimately united; and the action of each may be more necessary for the other than we can yet discern. The strength of a chain is that of its weakest link.

Diminished muscular power is perhaps the least important of the results of brain-fatigue. Those who experience these effects are chiefly brain-workers; and the indications of weariness are more direct. But they are various in their forms, protean to a degree which transcends description. They vary according to the peculiar condition and constitution of the individual; and that which arrests the labour of one person may never be experienced by another. Common to most persons, however, is a sense of diminished brain-power; the 'mental grasp' is lessened, and a greater effort is needed for mental work; the memory will not respond readily in voluntary 'recollection.' Of this, many illustrations are given by Mosso from the experience of his medical friends as to the influence of their lectures and examination work on themselves. Indeed these experiences transcend those of our own countrymen in a degree which suggests that the Italians put more energy into their teaching than we do, and suffer from it far more. One professor who can lecture easily and happily to forty students, finds the task of lecturing to two hundred so severe a strain as to leave him utterly exhausted. The fact is described as independent of the vocal effort to reach the larger number, and as a mere result of the conscious demand of the larger audience. Most Englishmen, we think, would be stimulated by a large number of auditors in a degree that would facilitate the task, and leave them less tired at the end than they would be after driving the subject, without this stimulus, into a small number. But national temperament is responsible for many differences; and it is important that idiosyncrasies of race should not be assumed to be universal

There is a Yorkshire saying, 'Don't measure my corn in your skep,' the spirit of which is of wide application.

The extreme variety of the subjective manifestations of mental fatigue experienced by different persons, even of the same race, is forcibly illustrated by a collection of facts made by Mr Francis Galton. He chose teachers as the persons most likely to give records of the signs of mental fatigue, owing to their double range of observation—on their pupils and on themselves. He obtained replies from more than a hundred, and carefully analysed them. Some evidences of brain-weariness in pupils, which the teachers record, are to be ascribed rather to imperfect attention than to real fatigue. Restlessness is most commonly adduced as a sign of weariness; but the inattention of children, which causes their mobility, is rather to be ascribed to deficiency in the teacher than to fatigue in the pupil, as was pointed out by Sir Joshua Fitch in the discussion which followed Mr Galton's paper. The involuntary muscular actions, which we comprehend under the term 'fidgets,' are natural to children; but they lessen as years go on. Mr Galton has himself made some interesting observations on the stillness of learned audiences under a 'stiff' lecturer, compared with the constant restlessness of a juvenile audience. Indeed the relation of attention to fatigue is very misleading. The concentration of the mind on a single subject prevents the perception of other sensations. These are felt if the attention is incompletely occupied; they induce involuntary movements which are mistaken for indications of fatigue. They are no doubt signs of mental weariness, but not of true fatigue. The fact brings out the difference of meaning of the two words and shows that they are not interchangeable. We are often weary when we are not fatigued, and sometimes even because we are not.

The replies given by the teachers to Mr Galton regarding their own sensations, and the numerous experiences collected by Mosso of the character of personal sensations produced by fatiguing brain-work, show their extreme variety. Their diversities are so great as to make their systematic study extremely difficult; and it is evident that they are largely determined by personal peculiarities. The most definite effect of excessive brain-exertion is imperfect brain-power, analogous to the

diminished strength of muscle. But it has features which clearly depend on the characteristics of the individual, unsuspected until thus revealed. The most common feature is failure of memory in its voluntary use, and a weakening of that comprehensive activity in the brain which is described as the 'power of grasping a subject.' The defect in the volitional memory which is called 'recollection' shows itself especially in the use of words, and first, of those that are more special. It often proceeds to a derangement of the secondary symbolism of writing. The writer of a letter produced during thorough brain-fatigue, who is so wise (or unwise) as to read it over, will be surprised to find that he has left out words or miswritten them. He thinks he has misspelt them, and so he literally has; but it is generally an imperfect control of the process of visualising the letters in words, so that, of two words beginning with the same letter, the first is made to end with the termination which belongs to its successor. When there is no fatigue, such mistakes are never made. Those who never read through their letters surprise their correspondents; those who do, alarm themselves. The processes for using words as symbols of thought involve many and various forms of brain-activity which are very easily deranged. Thought is symbolised in words, and these are re-symbolised in writing; the double process thus affords evidence of brain-fatigue at once delicate and obtrusive.

When we pass to other manifestations of fatigue, we find that they largely depend on personal weakness, and we meet with many varieties which are of no general significance; they are, indeed, only important in their negative character, and their peculiarities are purely due to idiosyncrasy. For example, among the facts collected by Galton as signs of fatigue is a tendency for the letters of print to run together when the reader is tired. This is simply due to overwork in the muscle within the eye which adjusts the focus. The muscle is inherently weak in that particular individual, and it fails before other parts in consequence of general nervous fatigue; but the failure has no other significance. Other personal effects of fatigue which he mentions, such as transient colour-blindness, are susceptible of the same explanation.

By far the most common effects of over-use of the brain are sensory in nature, definite 'feelings.' They are almost appalling in their variety and degree. The distress they cause suggests the thought that the human brain has been compelled to work too soon, before the lower functions of the nervous system have been developed enough to counterbalance the employment of the higher, so that the weight of mind is more than can be borne. The most common of these sensory effects of fatigue is headache. Common as it is, there are many persons to whom it is unknown; and its actual origin is still a mystery. The brain can be handled and cut without pain, and yet is, in some way, the source of severe suffering in mere functional disturbance. But other parts of the body present the same strange feature. The intestines normally give rise to no sensation, and yet undue contraction causes intense agony. A healthy person is not aware that he has a delicate membrane covering the lung, called the 'pleura,' which is stretched when the lung expands in breathing without the least sensation being produced. But if this membrane is inflamed in what is called 'pleurisy,' acute pain is produced each time the breath is drawn—an experience which has been endured by the majority of persons of middle age. The occurrence of headache, of pain in a brain that seems insensitive, is thus not a unique event, and yet it is hard to understand. It is often replaced by other sensations almost as distressing. But one character of these sensations, which is a matter of common experience, is very curious; it is the sensation of 'thickness' or 'cloudiness' or 'denseness' of the brain which results from overwork. It is a purely physical sensation, which seems to be in the brain itself, and yet it corresponds very closely to the condition of the mental processes.

These cerebral sensations which fatigue produces are almost inexplicable, but they naturally turn our thoughts to those that are felt in the muscles after much exertion, to which they bear some resemblance. We have seen that these may be ascribed to products of muscular work acting on the sensory nerves. It is reasonable to think that the brain sensations are produced by an analogous mechanism. The action of the cerebral structures must result in the formation of lower chemical compounds

analogous to those which are produced in muscle. The nerve tissue is more sensitive, and must be more readily influenced. But our present difficulty is that we do not know where the perceptive element exists in the brain tissue. A few years ago, however, we did not know where the sensory element existed in the muscle; and we may hope that the mystery which has there been solved will also be made clear in the brain. In all sciences the first essential element is the discernment of facts. When these are clearly seen, our work must be guided by them; or our efforts are futile. The old saying that 'facts are stubborn things' is always true. When their existence and form are discerned, all theory must adapt itself to them and explain them, or be dismissed, in Ruskin's phrase, as 'thistle-down without seed.'

Precise observation is however much baffled by varieties in the sensory susceptibility of individuals. It is probable that these depend on differences in the actual constitution of the nervous tissue—more minute than we can well conceive, and yet causing effects that are obtrusive. In different persons there may exist diversities of tissue which give rise to great differences in the products of action, rendering these much more harmful in one person than in another. The same diversity may render the sensory structures far more prone to disturbance, and to more distressing disturbance. Thus an original variation which, if it could be discerned, would be minute almost beyond conception, may entail a profound difference in ultimate effect. Such considerations may help us to conceive the way in which the effects of fatigue are manifested, although they constitute little addition to our knowledge.

Another class of fatigue effects can only be understood on the same hypothesis of peculiar constitution. Instances of disturbed function in the organs of the body figure frequently among the facts that Galton has gathered from the personal experience of teachers, and that Mosso has recorded as the results of lecturing and examining, felt by himself and his colleagues. Mosso has investigated them with precision; but he has ascertained little more than the bare facts. The action of the heart, the functions of the stomach, and the work of the liver and other organs, are disturbed in various ways;

and even the temperature of the whole body is sometimes altered by hard mental work. But such derangements of organs produce their own independent effect; they act especially on the blood, and thus prolong the discomforts due directly to fatigue. One great function of the liver is to eliminate the harmful products of muscular action; and whatever interferes with this process augments the amount of toxic substance in the blood.

It may be reasonably asked, What is the relative importance of the signs of brain-fatigue? We cannot doubt that any indication of failure of brain-power transcends all others in absolute importance. The physical sensations that occur are of slight and merely personal significance compared with defects of memory, of concentration of thought, or of the use of the muscles for such processes as writing. But, to the individual, the varied sensory disturbances which are produced by overwork are equally important, because they are equally distressing. They tend to grow by the fostering effect of repeated production; and those which are of no intrinsic significance may, by the distress they cause, be utterly disabling.

Another question often asked is, What amount of truth is there in the familiar doctrine that fatigue is prevented by change of work? If only the work is not too heavy, we can discern the reasonableness of this belief. Any special form of mental occupation involves the use of the nerve structures in a definite degree and a particular combination. Even the nerve elements in the same region of the brain may be active or not, intensely energetic or slightly active, according to the precise character of the cerebral process. All functional action stimulates nutrition, and is definitely beneficial, provided it does not exceed a moderate degree. Indeed, absolute rest is apparently unknown to the elements of the nervous system. They are in constant, gentle, unperceived activity. In all parts of the body, on the surface and in the internal organs, impressions are constantly arising, for the most part unperceived, which cause activity of the afferent nerves and of their related central structures, processes which spread widely, even to the motor structures and the motor nerves, and maintain the muscles in their state of firmness or tone, itself essential

for the muscular nutrition. This constant activity entails nutritional changes in the elements, necessary for the maintenance of their normal state. Their constituent atoms are always passing away, and always being renewed; were it not so, it would be impossible for them to pass into the state of energetic action that may be evoked at any moment. These changes seem to be the nutritional counterpart of the gentle action we can discern; and both are essential for the life of the structures. Their increase within moderate degree by work involves increased nutritional change, a greater vital efficiency. A different form of mental work may thus involve the gentle activity that is conducive to better replacement of old constituents by new, and may thus promote the general well-being of the brain.

Moreover we can discern another reason for the beneficial influence of the change of work. By a wonderful mechanism, which we imperfectly comprehend, all functional activity is attended by an increased blood-supply. The minute vessels which convey the blood dilate; and more blood passes to the acting tissue than to one that is quiescent. Hence there is a more abundant supply of the nutritive plasma, which passes from the vessels to the tissues laden with fresh material from which the nerve elements appropriate what they need. But the arrangement of the vessels which convey the blood bears only a very general relation to the functions of the brain. In the same part different layers of the brain may have different functional relations; they may be involved in very different degrees in various forms of brain activity; yet the dilatation of the vessels and the increased blood-supply involve them all alike. The increased flow of the blood, and increased access of the elements essential to replace those which are lost in action, involve an augmented supply to all the tissues in that region, to those which have been only slightly called upon as well as to those which are more or less exhausted. On the other hand, the work of the tissue means an escape of its used-up elements, and a need for their removal, as well as for the fresh supply which the increased flow of blood affords. Thus we can understand that the old belief has a distinct and intelligible foundation. A different form of activity may leave the exhausted

elements almost at rest, and yet aid the renewal of their lost material and promote the removal of the waste products.

The same considerations apply to muscular exercise in even greater degree. Although the region of the brain chiefly employed may not be the same, all parts share such activity; and for all parts the blood supply is augmented, not only as a result of functional activity, but as the effect of the stimulation of the whole circulatory system which physical exercise involves. The heart beats faster; and the respirations, being quickened, augment the supply of oxygen which the muscles demand but which goes also to the whole system. The purer the air inspired, the greater is its beneficial influence; and hence the advantage of exercise in the open air. But, to be useful, exertion must be moderate. In excess, as we have seen, the brain is hindered by the products of its own action, as well as by those of the muscles; for all physical effort involves corresponding activity of the motor centres in the brain.

We are accustomed to talk of 'recreation' without discerning how much the word implies. It means 'making again' that which work has undone, or rather facilitating the marvellous recuperative power of life. Rest and recreation are the antidotes of fatigue; but recreation should be such as to deserve the name. It does not replace rest, but, properly employed, aids its influence. Its value is great in proportion as it involves a thorough change in the character of nerve activity. But it should always be remembered that no recreation is possible if that which is thus designated simply replaces one form of fatigue by another form. Many a holiday is rendered useless by such disregard of the dictates of that rare practical wisdom to which, as if in irony, we apply the designation 'common-sense.'

W. R. GOWERS.

Art. XI.—FRENCH PAINTING IN THE MIDDLE AGES.

1. *Les Primitifs Français au Palais du Louvre et à la Bibliothèque Nationale.* Catalogue rédigé par H. Bouchot, L. Delisle, J.-J. Guiffrey, Frantz-Marcou, H. Martin, P. Vitry. Paris: 1904.
2. *Exposition des Primitifs Français.* Compte rendu par Paul Vitry. Special number of 'Les Arts.' Paris: Manzi, Joyant, 1904.
3. *De quelques travaux récents relatifs à la Peinture Française du XV^e siècle.* Par Paul Vitry. Paris: Rapilly, 1903.
4. *L'Exposition des Primitifs Français au point de vue de l'influence des frères Van Eyck sur la Peinture Française et Provençale.* Par Georges H. de Loo (G. Hulin). Paris: Floury, 1904.
5. *Les Œuvres des Maîtres de l'École Flamand Primitifs.* Par Mgr Dehaisne. Paris, 1891.
6. *Gazette des Beaux Arts.* Articles by le Comte de Durrieu, R. Maulde de la Clavière, B. Prost, Salomon Reinach, A. Champeaux, Benoit, Léopold Delisle.
7. *La Revue de l'Art.* Articles by le Comte de Durrieu and l'Abbé Réquin.

THE exhibition of French Primitives held recently in the Pavillon de Marsan of the Louvre was to some extent a result of the great success which attended the exhibition of the Primitives of the Netherlands held at Bruges in 1902. M. Georges Hulin, whose admirable critical catalogue of that exhibition gave him at once a foremost position among the critics of mediæval painting, pointed to a number of works in that collection which were of French origin, and remarked on the singular indifference shown by so artistic a nation as the French to the study of their own early schools of painting. M. Bouchot took up the challenge; and no one will deny that he and his colleagues have done all in their power to make up for past neglect. In their writings the importance and interest of early French painting have been fully proclaimed. Some will even think that their repentance has been excessive, and that the measure of praise accorded to the French Primitives has been filled to overflowing. It may be admitted indeed that, after having in the past

carelessly allowed the works of their own masters to be attributed to van Eyck and Wohlgemuth, and even to be called '*œuvres grecques*,' the French are now inclined to claim as part of their national inheritance a considerable share of the works of Flemish artists.

No harm, but rather much good, has come of this enthusiasm. Without some such feeling, it is doubtful whether even M. Bouchot could have overcome all the difficulties which lay in his way. Moreover, while the French origin of disputed works and the independence of the French tradition has been asserted in very positive language, neither M. Bouchot nor any of those who, like M. Paul Vitry, so ably assisted him, have shown any inclination to force the verdict of foreign critics. On the contrary, every facility was given to students; inquiry and discussion were courteously welcomed; and, if the hope was entertained that the exhibition would prove to the world the existence of a mediæval French school of painting, even this cherished aim was felt to be subordinate to the search for historical truth.

In the main, then, the thesis which the exhibition was intended to illustrate, and if possible prove, was that, alongside of the great fifteenth-century traditions of the Netherlands and Germany, there was another tradition as great, as original, and as national—that of France; and, further, that the tradition of the Netherlands was itself in the nature of an offshoot from the more complete and continuous tradition of still earlier French art. As yet, no final consensus of opinion has been arrived at on these points; but the weight of authority seems to incline to a negative verdict. This statement requires some modification and explanation, which it will be the object of this essay to supply; but we may say at once that, even if we accept the negative verdict, and deny to the French school of painting in the fifteenth century the homogeneity and completeness that we find in that of the Netherlands, we must nevertheless admit that the pictures shown in Paris this year, even if we confine ourselves to those which may properly be called French, were more varied in interest and occasionally rose to a higher range of imaginative feeling than those seen two years ago at Bruges.

The very want of homogeneity in the French tradition

actually contributed to this result. We may compare the styles which thus arose on French soil with our own language, which owes its richness of poetical content to the fusion of the German and Latin tongues. Like that, the French painting of the fifteenth century was, it may be, a hybrid compounded of Latin traditions vivified by a Teutonic directness of vision; but it was a magnificent hybrid, used by French painters to express essentially French conceptions and to illustrate French manners, and coloured by the French temperament. Still it would be difficult to find any common characteristics which bind together such diverse works as those of, say, Charenton and Fouquet and Froment. In fact the very words France and French, as we employ them, are misnomers for the fifteenth century. At that period a native of Burgundy was more united by political ties with Brussels than with Paris, while a Provençal was even less of a Frenchman than he is to-day.

The organisers of the exhibition have indeed recognised this fact by distributing the pictures among the various provinces of France, creating with lavish ease schools of Lorraine, of Artois, of Picardy, of Auvergne, of Champagne, besides the better-recognised schools of Paris, Touraine, Bourges, Moulins, and Provence. That these schools were created on insufficient grounds may be seen from the fact that an interesting work (No. 94) of the so-called school of Lorraine, one which might have been expected to exemplify the essential characteristics of an important group, contained inscriptions which were unmistakably in Dutch. No less remarkable was the bold but unsuccessful annexation to French art of the Maître de Flémalle, under the convenient title of École d'Artois.

The difficulty of discussing this question of a French school is largely due to the exceedingly small number of works which have survived. When we look at the Annunciation from Aix, at the Pietà from the same town, and at the few works attributable to Fouquet, all of them masterpieces of the most diverse kinds, and certainly on a level with any works produced at the same time in the Netherlands, we can hardly doubt that what we see are but isolated peaks of a once continuous mountain range, since submerged by the oblivious waters of political disturbance. Such great masterpieces could not have been

sporadic and isolated efforts of genius; nor can we be sure that a fortunate chance has even preserved for us the finest products of the school. At all events, each surviving genius implies the unrecorded efforts of many men of talent; and such works as we possess indicate the continuance of a good tradition and the emulation of a school. The labours of archivists, which in France have preceded and outrun the work of critics, have given us, for every name of an artist to whom we can safely attribute even a single work, the names of numerous artists, famous in their day, of whom no certain performance remains. Thus, of the three leading artists in Paris who in 1391 formed a society of arts regulated and approved by the Garde de la Prévôté—Colard de Laon, Jean d'Orléans, Étienne Lannelier—we know nothing. Of Jean de Hasselt, who was court-painter first to Louis de Mâle and then to the first Valois Duke of Burgundy, and who was succeeded by Broederlam, we have no indisputable work, though he clearly must have been a distinguished artist. Of Conrad de Vulcop, painter-in-ordinary to Charles VII, of Jean le Sage, 'peintre très exquis du Roy de France Loys,' of Colin d'Amiens, celebrated for his portraits, and of Jean Poyet, who was praised as highly as Fouquet, we have no knowledge. The Abbé Réquin, to whose industry and learning we owe so much, has unearthed the names of more than a hundred painters working at Avignon during the fifteenth century, of whom only two have certainly survived in their works—Enguerrand Charenton and Nicholas Froment.

Again, if we take fresco and wall decoration, of which we now have scarcely any vestiges for our period, we know that the walls of the Hôtel St Pol, the old Louvre, the Hôtel de Savoisi in Paris, and the châteaux of Bicêtre and Vaudreuil, were covered with paintings, and that the Countess of Artois employed painters in all her castles—at Bapaume, at Rihoult, at Lens, at Hesdin; while at Conflans she caused to be depicted the exploits of her late husband. If we could but see these, and still more the castle at Valenciennes, where the Counts of Hainault had painted a 'Jeu d'échecs' and a 'Pas de Saladin' and a 'Marché aux singes,' we might gain a totally new conception of how the realistic movement of the fifteenth century was prepared in the latter part of the fourteenth,

and of the relative parts played in that development by the French and the Netherlandish peoples. When, therefore, we are inclined to emphasise the want of coherence and continuity in the French as opposed to the Flemish and Dutch schools, we may possibly be misled by the mere accident of this deplorable scarcity of surviving works. Suppose for a moment that we possessed only one or two of Jan van Eyck's portraits, one *Pietà* by Rogier van der Weyden, two or three *Madonnas* by Memling, one grotesque martyrdom by Dirck Bouts, and a landscape by Gerard of Haarlem, and that to the majority of these paintings we could attach no established names, we should lose almost entirely our sense of the common characteristics of the school of the Netherlands; we should miss the cumulative effect upon the imagination of a number of different subjects treated in a similar manner and from a common point of view. We might recognise, as we do now with the French, the greatness of single works of art, but we should lose the conviction and clearness of appreciation which come from varied comparison and contrast.

In these circumstances, where a quantity even of second-rate works was so much to be desired in order to throw light on the few masterpieces accessible, it is to be regretted that the organisers of the exhibition in Paris did not devote more time and energy to collecting reproductions of every remaining scrap of fresco-painting and of every ruined altarpiece hidden away in the sacristies of village churches. Had a separate committee been formed for making such a photographic census of the remains of mediæval painting in France, many unforeseen connexions might have become plain, many illuminating hints of the development and spread of traditions might have been gathered. That this was not done is, perhaps, the most serious criticism that can be urged against an otherwise admirable example of organisation.

If, for the sake of clearness, we may dramatise the succession of artistic ideas which the exhibition illustrated, we might entitle our play the 'Birth of Modern Painting,' while a subordinate plot would be that of the conflict between 'Latin and Teutonic Culture.' Like most true historical dramas, it is somewhat inconclusive and awkward in construction, for the climax is reached at an

early stage, and without any adequate preparation. The climax is, of course, the sudden and apparently mysterious outburst of a complete naturalistic art in the second decade of the fifteenth century.

The scene opens for us at the Pavillon de Marsan in the middle of the fourteenth century with the South in possession of the field, for in looking at the portrait of Jean le Bon we can scarcely fail to see the predominance of Italian ideas. Not only is the technique, a tempera on a richly-tooled gold background, distinctively Italian, but the drawing of the eyes follows the tradition founded by Giotto and modified by the Siennese artists. This pre-eminence of Italy might well surprise us, for it was less than a century before this that France was shedding a new vivifying influence upon Italian art, quickening to a new power of expression the pseudo-classic forms of Niccolò Pisano. This fact would seem to suggest that thirteenth-century France, supreme in sculpture and miniature painting, yet looked to Italy as leading the way in painting proper. Some other facts support this view. So early as 1298 we find Philippe le Bel sending Étienne d'Auxerre to Rome, while in 1304 he takes into his service as 'painters to the king' three Italians, Filippo Bizuti (? Rusutti) and his son, and Niccolò de' Marsi. It strikes one as just conceivable that the small picture (not catalogued) in the first room, representing a crucifixion with the Virgin and St John in the upper half and the 'Noli me tangere' in the lower half, may be the result of some such Italian importation. It certainly belongs to the first years of the fourteenth century, and, though in the Italian style of that period, has a certain *mignardise* which suggests French influence. No less remarkable as showing Italian, especially Siennese, influence are the two panels lent by Madame Lippmann (Nos 5, 6), which were actually attributed to the Siennese school when recently sold in London.* They show, too, that however much their Italian masters surpassed the French painters of the fourteenth century in pictorial composition, in technical excellence and fineness of execution the French were their equals if not their superiors.

More purely French than any of these is the great

* Reproduced in the 'Burlington Magazine,' June 1903.

'Parement de Narbonne' (3), a water-colour drawing in Indian ink on white silk. But it is to be noted that, in proportion as it is purely French, showing only the slightest traces of Sienese influence, so is it not a true picture, but merely an enlarged miniature, entirely wanting in that spacial relation of forms which is the essence of pictorial design. The drawing of the individual figures in this remarkable piece shows that at this date (circa 1375) the pure French tradition which descended straight from the great sculptural art of the thirteenth century had hardened into a dull if elegant academicism. Such, too, was almost the fate of Italian painting towards the end of the century. The great movement of the Gothic period, which reached its climax in France in the first half of the thirteenth century, and in Italy at the beginning of the fourteenth, was nearly spent; and the time was ripe for the next great outburst of vital energy, the realistic movement of the fifteenth. And for this France at least was to be indebted not to Italy but to the Teutonic borderland, to Artois, Limbourg, and the countries towards the Rhine. None the less, though that new movement is inseparably connected with artists of Teutonic race, the first steps were undoubtedly made in France; and one cannot doubt that the French surroundings in which these innovators worked, the French patrons whom they strove to please, the French standards of elegance and style which they were forced to maintain, had a profound influence on the character of their work. We may even go further and say that, when the predominance of Netherlandish centres of production was once thoroughly established, something was lost to the art of the fifteenth century.

The names of the artists who prepared the way and consummated the new ideas are alone sufficient to prove the prevalence of Teutonic blood. Jean Bandolf, Melchior Broederlam, Claus Sluter, Jean Maelwael, André Beauneveu, Jacquemart de Hesdin, Hanslein of Hagenau, Pol de Limbourg, and finally, Hubert and Jan van Eyck—these are the artists who, with many other nameless ones, effected the greatest revolution in the art of pictorial design which European art ever underwent. But, if we are to be quite precise, we must mention first of all one exception to our otherwise constant rule. The

Breviary of Belleville, painted before 1334, shows, in the few remaining representations of the seasons in the calendar, the germ at least of that naturalistic treatment which reaches its highest point in the calendars of Hubert van Eyck and the Limbourgs; and this Breviary was the work of French artists—Jean Pucelle, Ancelet de Ceus, and Jacquet Macé. The influence of the calendars of breviaries and books of hours upon the development of naturalism is noteworthy. The scheme of the Breviary of Belleville was long retained as a type. The 'Grandes' and the 'Petites Heures du Duc de Berri,' by Jacquemart de Hesdin, executed at the beginning of the fifteenth century, follow it precisely. The representation of the seasons in the calendars was a direct stimulus to the artist to render scenes of every-day life, and to master the problem of the relation of figure to landscape. It is not surprising, therefore, that the first completely realistic landscapes occur in such calendars.

But the indications of the new movement are of the slightest kind in the Breviary of Belleville; a much more decided step is apparent in the work of Jean Bandol, or Bandolf, whose portrait of Charles V (of France) in the 'Bible Historiale' at the Hague forms a striking contrast to the portrait of Jean le Bon or that of Charles V in the 'Parement de Narbonne.' This is fortunately one of the most fully 'documented' pieces that we possess, since on the page we have the statement that John of Bruges (Jean Bandol), court-painter to Charles V, painted this picture with his own hand in 1371. This was some years before the execution of the 'Parement de Narbonne'; but, whereas that is a merely academic and traditional performance, there is in Bandol's miniature a quite new realism. The king sits in his chair not in mere profile, but turned towards the spectator, though his head is turned away so as to be in profile. As M. Hulin points out, it is not till the van Eycks appear that we get the three-quarter face portrait; still, the pose of the king, no less than that of his chamberlain, who kneels to offer him an illuminated manuscript, gives us a quite new sense of being an actual study from life, while the heads have a verisimilitude and, to be frank, an ugliness quite new in mediæval art. There is here nothing of the grand Italian style of the 'Jean le Bon,' nor any of the merely

calligraphic dexterity of the Charles V in the 'Parement. There is, on the contrary, an almost crude want of style, a rough directness of rendering of the thing seen, which threatens already to do what this tendency to verisimilitude has at times accomplished—destroy style altogether.

But the tendency to style, that is to say the tendency to compress the forms of nature within the limits of a preconceived harmony, is as inherent in art as the desire to represent those forms; and the new feeling for naturalism was destined also to form a style which was distinctly opposed to the eurhythmic curvilinear convention of the fourteenth century. It was a style of straight lines and sharp angles. It is summarised for us by a comparison of the crumpled papery folds of Rogier van der Weyden's draperies with the undulating and consecutive curves of the drapery in the 'Parement de Narbonne.' This new style of the fifteenth century—the last and in some ways the most marked of all the Gothic styles—was certainly more suited to the temperament of Teutonic than of Latin races. It is seen in an extreme form in English designs, whether of stained glass windows or painted figures, of the fifteenth century; and in England alone it found adequate architectural expression in our Perpendicular buildings.

Jean Bandol's other great remaining work is the series of tapestries of the cathedral at Angers, representing the Apocalypse, of which a few pieces were to be seen at the Pavillon de Marsan. Here, though the compositions were taken from earlier French miniatures, the actual forms have a quite new ruggedness and decision. Not only are the types of faces more individualised, but in the draperies we have a more vivid sense of the weight and substance of the material than heretofore. When he represents kneeling figures, we even get those angular folds of draperies spread out upon the ground which M. Hulin considers to be distinctive of the style introduced by the Van Eycks; and yet this tapestry was executed about 1377. Bandol, then, was the precursor of the new movement in European art; but, though he came from Bruges, he worked, so far as we know, chiefly in Paris and for the French king.

The next series of works which we must consider were

those executed for the great Chartreuse of Champmol, which was built by Philip the Bold in 1383-6. In 1384 Claus Sluter began his work as a sculptor there, and by 1404 had nearly finished Philip's tomb. Here, in the work of Claus Sluter, the new naturalistic ideas received their first complete embodiment; and to Sluter must be given a position almost as great as that assigned to the van Eycks, whom he preceded by about ten years. But the painters who were attracted to Dijon by this great undertaking show no corresponding originality and enterprise.

The most important remaining work which is still at Dijon, the great altarpiece by Broederlam, was not painted there but at Broederlam's home at Ypres, about 1392. Here, then, is the work of a Flemish painter whose only known connexion with the court of France is that on one occasion he was called to Paris to assist in the decorations for a royal pageant. It marks, however, an important stage in the development of pictorial art. In this altarpiece we note a great advance in the pictorial rendering of actual space, a new naturalism in the relations of figures to landscape, although the perspective is still far from correct. But, most of all, we notice an extraordinary advance in the full realisation of individual forms by means of light and shade. The donkey in the 'Flight into Egypt' is already a complete rendering, not of the abstract conception, but of the actual appearance. The *genre* element is no less striking an innovation here; we have in the Joseph a figure of a peasant drinking, taken as straight from contemporary life and treated with the same unreflecting curiosity as in a drinking scene by Brouwer or Teniers. Now this *genre* feeling is the essentially Teutonic contribution to European art; it has never flourished so well in France—where the call to a more elevated and intellectual conception, the Latin conception of art, is never quite forgotten—as it has flourished in Holland and England. Broederlam's altarpiece, then, marks a decided stage in the progress of naturalism, and one which set the key for the art of the miniaturists for some time to come. Jacques Cône and Hanslein of Hagenau, whom M. Durrieu hails as innovators, were working out, during

the first years of the fifteenth century, various aspects of the pictorial ideas expressed in 1392 by Broederlam.*

We must return, however, to the artists who actually worked at Dijon. Of these the chief was Jean Malonel, court-painter to the Duke of Burgundy till 1416, when he was succeeded by Henri Bellechose, who again was superseded in 1425 by Jan van Eyck. Around Malonel we may group the following: *Pietà* (14), the *Trinity* (15), the *Entombment* (4), and the large altarpiece with the martyrdom of St Denis from the Louvre. To Bellechose† may be attributed the gross imitation of this last, in which St George replaces St Denis. In this group of paintings we find great delicacy of workmanship, an almost total want of pictorial composition, and in general a return from the advance already made by Broederlam. It is only in the expression of the faces in the St Denis picture and the vigorous rendering of movement in the executioner that we detect here any effort in the new direction. In the main they approach the art of the miniaturists as to design, and the Italo-French traditions, as seen in the portrait of Jean le Bon, as regards technique.

Of the other Netherlanders working in France at this period André Beauneveu is by far the most famous. A native of Valenciennes, we find him working everywhere and in various arts. As a sculptor he worked from 1361 on the town-hall of his native city, later for the royal tombs of Philippe VI, Jean le Bon, and Charles V, then at Malines, then at Ypres, and in 1390 at Méhun sur Yèvre for the greatest patron of the time, Jean duc de Berri.

* M. Hulin makes the interesting suggestion that the beautiful *Madonna and Child* (13), lent by M. Aynard, is by Broederlam. This seems quite possible; but still more akin to the Dijon panels is the series of small pictures in the Mayer van den Bergh collection at Antwerp.

† It is sometimes objected to this view that the documents published by M. de Champeaux (*Gazette des Beaux Arts*) compel us to attribute both of these large altarpieces, wrought for the Chartreuse of Champmol, to Bellechose, and therefore to give to the St Denis the date 1416. This is frankly impossible, since the evidence of our senses compels us to deny any collaboration in the exquisitely finished St Denis picture by the clumsy author of the St George. Since that is the later picture we naturally assign it to Bellechose, and the St Denis to his predecessor. A great many altarpieces were executed for the Chartreuse, and it is rash to suppose that the *Life* of St Denis ordered of Bellechose is identical with the *Death* of St Denis in the Louvre.

Jean employed him particularly on illuminated manuscripts, the multiplication of which became an absorbing passion in the later years of his life. Beauneveu belonged to a slightly older generation of artists than those we have just been considering. He was not strikingly novel or realistic in his forms: but he represents, perhaps better than any other artist, this transitional period. His draperies are elegant and unstructural; his figures do not sit or stand with *aplomb*; but his faces show a slight departure from conventionalised ideal types, and his ugly squat proportions and awkward articulations are suggestive rather of the cruder northern style than of the academic elegance of the pure French.

Did this celebrated but, so far as we know him, rather mediocre artist execute for Richard II of England the superb diptych now at Wilton House? That is the suggestion made by Mr Weale, whose unrivalled knowledge of the art of this period recommends it to serious consideration. It is impossible to deny the close similarity of design in the left-hand wing of the diptych to that in a miniature by Beauneveu, where the Duc de Berri is presented by his patron saint, while even in the drawing of the articulations, and in the rather bland inexpressive faces there is some resemblance. What makes one hesitate is the freshness and charm displayed in the design of the Virgin with her attendant angels. Nothing else that we have left of Beauneveu comes up to this. While we might grant him the marvellous perfection of the technique, it is difficult to allow him also the refinement of taste, the gaiety and charm of the invention.* On this side another work comes nearer to the Wilton House picture, namely, the drawing of the Death of the Virgin, from the Louvre (18), which has been ascribed to Beauneveu, but is probably by a closely allied and more sensitive artist. In any case it is in the near neighbourhood of Beauneveu that the author of this work, perhaps the most exquisite though by no means

* In support of the attribution to Beauneveu comes Froissart's statement, 'il n'y avoit lors meilleur ni le pareil en nules terres, ni de qui tant de bons ouvrages feust demoré en France, ou en Haynau et au royaume d'Angleterre.' Also, it must be remembered that the miniatures executed by him at the close of a long and active life may give us an inadequate idea of his talent as a painter.

the greatest painting of the later Middle Ages, must be found.

We come now to the great revolution in the art of painting, of which we have hitherto traced the tentative beginnings. As M. Hulin says,

'From the moment that the van Eycks had shown the way, whatever the fortunes and vicissitudes of particular schools might be, the predominance of the van Eyck style was assured; modern painting was already born.'

This great change may be defined as due to the rigid acceptance of the laws of appearance as the canon of pictorial expression. When Jan van Eyck painted his 'John Arnolfini and his wife,' that canon was established. The relations of objects therein are those of our actual three-dimensional space; the objects have their full relief in light and shade, their due local colour duly modified by accidents of illumination. Since that day different aspects of natural appearances have been exploited by artists; light and shade have been emphasised at the expense of colour and form, colour at the expense of relief, relief at the expense of colour and chiaroscuro; but it may be doubted if ever again all the elements of appearance have been rendered with such equal intensity, with such perfectly balanced emphasis.

We are now so familiar with the view that painting must follow the laws of natural appearance that it is hard for us to realise how little in the year 1400 that necessity was apparent, how contradictory even it may have appeared to the essential aims of pictorial expression. Let us take two examples of the conceptual and the phenomenal theories of design. One is a diamond-shaped pane of glass in Chartres Cathedral whereon a hunting scene is depicted. The huntsmen, on whom are concentrated our imaginative sympathies, fill the left-hand angle of the diamond and extend across the centre of the pane; up the right-hand lower border run two stags, whose antlered heads fill the space between the horses' fore-legs and noses; while the space between the horses' fore and hind legs is filled with the pack of hounds. Here we have condensed into the smallest possible space the elements of the chase that appeal most to the imagination; and the appeal is made by the sympathetic and keen observation,

the dramatic fitness, of every line. To the artist who drew it and the public which enjoyed it, the criticism that these images do not bear the same relations as they do in three-dimensional space would have appeared impertinent. Our other example shall be a faithful picture of a modern battlefield: a wide undulating stretch of country broken by tufts of bushes and stones, here the almost indistinguishable accent of dark which tells of a soldier half hidden in the scrub, there the puff of dust which tells of a bullet striking the earth. There is absolutely nothing in such a scene whereby the artist can symbolise for us the intensest and wildest passions of the human spirit. Our thirteenth-century artist might complain that we have imposed limitations on our art which, in certain circumstances, reduce it to complete impotence. Limitations they may be called, since there is no reason why the order of appearance values should coincide with the order of imaginative values; most of modern art has been concerned with evading this difficulty by innumerable ingenious devices.

The revolution of the fifteenth century then was one which turned pictorial design from a symbolism of concepts to a symbolism of appearances; but, to be quite clear, we must make one further distinction. The change may in a sense be described as the growth of naturalism; but it is possible to combine accurate observation of natural forms with an unnatural correlation of them. In other words, we may have an art in which the objects are rendered phenomenally and yet related together conceptually; and there was a moment in the development of European art when this method seemed likely to prevail. Pisanello is perhaps the most striking example of this manner. His observation of certain natural forms surpasses that of any other European artist, and yet in the relations of his objects he contradicts the laws of appearance more completely than any even of his predecessors. In general we may say that the art of the late fourteenth century was moving away from the canons of phenomenal composition which were already vaguely present to Giotto's mind.

Three things are noteworthy about the revolution we are discussing—its suddenness, its completeness, and its almost simultaneous occurrence north and south of the

Alps. It is probable that the discovery on which it rests was made in Italy independently of the north, since it was approached from different sides. In Italy it was arrived at scientifically, in the north empirically, and therefore more rapidly and with a greater effect of verisimilitude. But, whether Italy be independent or not, two artists of the north appear to have the precedence by some ten years.* Those two artists were Hubert van Eyck and Pol de Limbourg. Unfortunately neither of the *pièces justificatives* was to be seen in Paris. One, the 'Hours of Turin,' was destroyed in the recent fire, and exists only in poor photographs; the other, the 'Très riches Heures du Duc de Berri,' never leaves Chantilly. It is on these, however, that the student of this momentous change must fix his attention. Of the three brothers from Limbourg who executed it, two stand out as distinct and individual talents of the highest order; the third is more or less derivative. In default of precise knowledge, we may call the two great artists Pol and Hennequin, and attribute to the first, who is also the best known, those works in which we find the nearest approach to complete naturalism. There are drawings like that for the month of June in the Calendar, where the complex mass of buildings of the Palais Royal and the Sainte Chapelle are rendered in true perspective, and the figures of the haymakers in the foreground are not only extraordinarily natural in their movements, but are more or less in their true relations with the landscape, while the

* The following are some works, with dates, in which the rendering of three-dimensional space is attempted.

Circa 1410. 'The Three Maries,' by Hubert van Eyck (collection of Sir Frederick Cook).

1411-1416. Miniatures of the 'Très riches Heures,' by Pol de Limbourg (at Chantilly). Miniatures of the 'Hours of Turin,' by Hubert van Eyck.

Circa 1420. 'The Virgin and two Saints,' by Hubert van Eyck (collection of Baron Rothschild). The first picture in which the realisation can be said to be complete.

Circa 1425. Predella of altarpiece at Cortona, by Fra Angelico, in which the figures are more or less correctly placed in a recognisable though schematic landscape.

Circa 1425. The Carmine frescoes, by Masaccio; complete relief in modelling and almost correct relations of figure to architecture and landscape.

Circa 1427. 'The Coronation of the Virgin,' by Fra Angelico (Louvre). Scientifically worked-out perspective and light and shade, but non-naturalistic colour and tone values.

relative tone and colour values of the earth, the buildings, and the luminous summer sky are noted with an exactitude which can scarcely be paralleled except in the art of the modern impressionists.

On the other hand we find in the work which we provisionally attribute to Hennequin extreme examples of that alternative method of design in which the individual figures and objects are rendered with complete naturalism, but related according to quite abstract ideas. Thus, in the story of the Fall, paradise is represented as a garden enclosed by a circular wall, and this wall is drawn as a circle on the vellum, while the barren land into which Adam and Eve are cast out is rendered by a ring of mountains, represented as we find them in old maps, and of the size of mole-hills in relation to the figures. The trees of the garden, drawn individually with surprising naturalism, are yet, relatively to the figures, of the size of cabbages. On the other hand, the figures are drawn with astonishing, though quite unscientific, realism. The life-history of this Hennequin, if ever we come to know it, will probably be as varied and as important as that of Hubert van Eyck. Like him he was a traveller; his miniatures show him to have been familiar with Italy; once he copied Taddeo Gaddi's fresco of the Presentation in Santa Croce, at another time he studied Simone Martini, while there is convincing evidence of his familiarity with Eastern types and costumes. Nevertheless, whereas Hennequin the traveller is still conceptual in many of his compositions, it is Pol, the stay-at-home, who is the great innovator in design; and the fact that we find in the same book, and done at the same time, works in which the spacial relations are so true to appearances as Pol's, and works which contradict them so entirely as Hennequin's, shows how sudden and, in a sense, unexpected the change was.

The de Limbourgs came from the same region as the van Eycks, though at present no direct connexion between them has been established, but they are far more imbued with French ideas. The manners, the costume, the essentials of style, are all French, and the landscape is either that of Paris or of the châteaux of the Duc de Berri. The difference between them and the van Eycks is in this respect very marked. For some reason, however, the

de Limbourgs left no such following as the van Eycks left. It may be that their activity was confined to miniature work; certainly we know of no paintings by them. Had they, and especially Pol, painted pictures, and had political conditions allowed of their forming a school, we might truly have had a genuine French tradition of the fifteenth century on lines parallel to, and distinct from, that of the Netherlands. As it is, there is only one artist who can be considered to have taken up their inheritance, and that is Jean Fouquet. We know that at least in miniature he is the descendant of Pol de Limbourg, and that he carried still further the new canon which Pol established, so that in such a miniature as that of St Martin (50) we find a completeness of verisimilitude which surpasses anything that Pol de Limbourg or any contemporary Italian artist attained.

The absence of oil paintings by the de Limbourgs makes it impossible to deny that the science of light and shade and of the degradation of local colour, which we find in Fouquet's paintings, may be due in part to the influence of the van Eycks. M. Hulin says definitely that it is so.* He even goes further, and derives the whole art of the fifteenth century in France and in Italy from the influence of the van Eycks. It seems, however, far more likely that, like most great discoveries, it was made independently, and almost contemporaneously, in the ripeness of time, at several centres.

The collection of Fouquet's work formed, naturally, one of the most important elements of the exhibition. With regard to a certain number of works no doubt is possible; but three portraits have given rise to discussion. Of these, the portrait of a man with an arrow, from the Antwerp Museum (47), was generally rejected, as purely Flemish work in which the van der Weyden tradition predominates. The other two, Count Wilczek's portrait of a man with a glass of wine, and the Liechtenstein portrait, were supposed by many to be by the same hand. M. Hulin upholds this view, while he gives both to an unknown Flemish imitator of Jan van Eyck, who worked

* 'L'Exposition des Primitifs Français.' His theory of van Eyck's influence on Masaccio depends on the likeness in pose between van Eyck portraits and that of an old man in the Uffizi, which, however, no responsible critics attribute to Masaccio.

in France, either in Burgundy or Provence. He indicates a number of points in which these two portraits agree, and in which both differ from the surviving works of Fouquet. The most important of these are that, in Fouquet's portraits, the faces are turned away from the light, while in the portraits in question they are turned towards it; also that Fouquet paints elaborate backgrounds, while these are of a uniform dark tone. To this it may be answered that Fouquet's portrait of himself in enamel contradicts both generalisations, while the elaborate backgrounds of portraits like the Charles VII and the Étienne Chevalier are explained by their being *portraits d'apparat*. Moreover, in one very important point, the Liechtenstein portrait suggests Fouquet rather than an immediate imitator of van Eyck: it is modelled in mass. It is the plastic relief of this head that is so remarkable; and the same may be said of the magnificent, and as yet underrated, portrait of Charles VII; whereas the characteristic of van Eyck's portraiture is that he convinces us by the addition of one minutely-observed detail to another, rather than by the plastic relief seen as a whole. Again, the psychological imagination displayed in this head finds at least nearer analogues in Fouquet's portraits of himself and Charles VII than in anything we know in contemporary Flemish art. On the other hand, it must be admitted that, if the date on the background of the picture be read 1456—and the best authorities seem now clear that this, and not 1476, is the true reading—it becomes difficult to fit it into the sequence of Fouquet's work. It remains, therefore, for the present, one of the most mysterious, as it is one of the most intensely imaginative, portraits in the world.

Another picture of the highest artistic merit which still remains as a target for critical guesses is the great Annunciation from Aix. M. Bouchot* attributes it to the Burgundian school, M. Vitry† to the school of Provence, while M. Hulin‡ gives us the whole life-history of the unknown artist. He was again a Fleming and a pupil of Jan van Eyck, who came early to France; he went to

* Catalogue of the Exhibition.

† 'Les Arts.' *Compte rendu of the Exhibition.*

‡ 'L'Exposition des Primitifs Français.'

the Council of Basel, where he met and profoundly influenced Conrad Witz; after which he settled at Aix, invited perhaps by René of Anjou. It is impossible not to admire the extraordinary ingenuity and perspicacity which have enabled this distinguished critic to evolve all this from the internal evidence given by the picture. Nothing else so definite has been suggested; and the theory has great plausibility. It may be suggested, however, that M. Hulin underestimates the French elements in the work, while he exaggerates the resemblance with that of Conrad Witz. The types are not Flemish, while the action of the hands, their elegance, and their vivacity of movement, together with a certain fineness of execution and a playful fantasy in the invention, separate this work very clearly from contemporary Flemish art. If the unknown artist be a Fleming, he must have become almost as completely French in feeling as the de Limbourgs, with whose art, as M. Hulin admits, this has at least one remarkable point of contact.

Fouquet's successors as court-painters in Central France were Jean Perréal, Jean Poyet, and Jean Bourdichon. Of these, the last is known by his miniatures to have followed Fouquet's manner, but at a great distance. His art is pretty, superficial, and essentially feeble. It has nevertheless been attempted to attribute to him the important triptych from Loches, representing the Carrying of the Cross, the Crucifixion, and the Entombment (69). This is one of the few large compositions of French origin in which a definitely pictorial design is apparent, and a true sense of relief and depth is obtained, while in certain figures the artist displays a grasp of structure and movement in the figure which is truly remarkable. It is, moreover, in many ways in advance of its period, since it is dated 1485, and yet in the landscape foreshadows the style of the sixteenth century. To attribute this powerful though scarcely pleasing work to an artist who was particularly deficient in the sentiment for form and devoid of all rigour and austerity seems impossible; and, while we have the alternative name of Poyet for this period, there is no necessity to strain a point in Bourdichon's favour. The attribution to Bourdichon of the portrait of the young Orlant (110) seems, however, to be extremely

probable.* Another picture of this period is the little Madonna with the Child trying on sandals (132) in front of a classic arcade, through which is seen a charming landscape. This is entirely in Fouquet's manner, but by a later artist, of whom so far no other work is known.

But by far the greatest artist of this generation is the Maître de Moulins. The wall devoted to his paintings gave an impression of mass and homogeneity which was unfortunately absent from those of all the other painters. The question of what is and what is not to be attributed to this master has been a good deal discussed; and yet his technique is so peculiar, the mastery with which he handles a loaded and liquid brush and obtains an even porcelain paste is so remarkable, that to those familiar with technique the question should not present serious difficulty. The tender beauty of his earliest work, the Nativity, from Autun (103), shows already his main characteristics, which are unmistakable in the Virgin and Child, from Brussels (109), the portrait lent by Mme Yturbe (107), and the Magdalen introducing a Donatress (108), recently acquired by the Louvre. The great triptych of Moulins sums up the character of his art; but in this elaborate and ambitious composition we miss something of the tenderness and wit of his earlier pieces. That the same hand also painted the knight† with St Victor, from Glasgow (106), appears to the present writer as certain as any judgment based solely on internal evidence can be.‡

With the Maître de Moulins we get a new nexus of influences. Hitherto we have been concerned only with the Flemish influence traceable to the van Eycks; but from about 1440 onwards that influence was obliterated in the Netherlands by the more typically Flemish style of van der Weyden. We have many instances in the exhibition of the influx of this current into French art. Of this we may take the Crucifixion of the Palais de Justice as a type. Clearly painted in Paris, and actually

* Mr C. Ricketts has called the attention of the present writer to a remarkable portrait in Vienna (No. 1489), there attributed to Holbein, which is clearly French and of this period. Here, again, Bourdichon's name is not impossible.

† According to M. Durrieu ('La Revue de l'Art,' June 1904), this is Charles III of Anjou.

‡ It is disputed, however, by M. Hulin, and doubted by M. Vitry and others.

influenced in some details by French art, it is nevertheless so completely Flemish in style and technique that we must attribute it to a Fleming working in France. This picture is connected by M. Durrieu with the diptych at Chantilly, representing Jeanne de France kneeling before the Virgin enthroned in the sky. Here the admixture of French feeling is more perceptible, though, again, the methods of van der Weyden predominate so much that it is usually ascribed to Memling. The enthroned Virgin of this picture stands midway between the Virgin in the Aix picture, by the Maître de Flémalle, and the Virgin of the Moulins triptych. Besides the general van der Weyden tradition that thus contributes to the formation of the Maître de Moulins style, there are also such evidences of the style of van der Goes as make it probable that the painter actually studied under that artist. On the other hand, the Moulins triptych shows him, as M. Hulin has pointed out, to have been influenced by the unknown but excellent French artist who executed the angels in Jacques Cœur's house at Bourges before 1453; while, again, a distinct though vague Italianising tendency is plainly discernible in the triptych. The fact that this has been ascribed to Benedetto Ghirlandajo, while the Glasgow picture has been given to van der Goes, indicates briefly the contributory elements to this complex but essentially fused and personal art.

Was this great unknown master, the Maître de Moulins, the same as Jean Perréal, of whom we know so much through contemporary documents, and who lives for us as one of the few historical personages in the history of French painting? M. Maulde de la Clavière* was the first to suggest it; M. Hulin and M. Bouchot agree; while M. Vitry, whose admirable study of Michel Colombe shows his intimate knowledge of the art of this period, pleads for suspension of judgment, and even inclines to a negative verdict.† The main support of the theory lies in the close analogy between the work of the Master of Moulins and that of Michel Colombe, and, in particular, in the surprising likeness between the allegorical figures in Colombe's tomb of Francis II (of Brittany) at Nantes and various figures

* 'Gazette des Beaux Arts,' 1895, pp. 265-273.

† 'Quelques travaux récents relatifs à la Peinture Française.'

in the paintings. On this tomb we know that Perréal collaborated; and a comparison of the two works gives to the theory a high probability. The chief difficulty that M. Vitry suggests is that Perréal was an Italianising artist; but this should rather be in favour of the theory, for, though the Italian influence is much less distinct and much less destructive than it became in the next generation, it is still present. We have in fact in the Moulins work just that nice balance of external influences which enabled the intensely French temperament of the artist who underwent them to express itself freely. As M. Vitry says, in his '*Michel Colombe et la Sculpture Française*':—

'Ce sont même, avec les anges qui dans le triptyque de Moulins entourent la Vierge glorieuse, les spécimens les plus caractéristiques peut-être de cet art spécial que nous avons vu se former pendant toute la fin du xv^e siècle, et qui se compose par moitié d'un adoucissement du style franco-flamand du xiv^e et xv^e siècles et de la réapparition logique d'éléments très profondément nationaux, qui ramènent doucement l'art français vers le caractère qui avait jadis été le sien à la plus belle époque de son histoire.'

Even M. Hulin, whose main thesis is that there were only two really creative centres in the art of the fifteenth century, Central Italy and the Netherlands, yet hesitates to deny the possibility of an independent and self-contained school in the south of France. Of this school two great works survive—the *Pietà* from Aix and the *Coronation of the Virgin* by Enguerrand Charenton. Nothing has been discovered with regard to the author of the *Pietà*, one of the sublimest conceptions which the art of the fifteenth century produced. But it seems highly probable that the *Retable* at Boulbon, to which attention has been called by the interest evinced in the *Pietà*, is by the same hand. It is a noble work, though by no means so felicitous in composition as the *Pietà*. On Enguerrand Charenton as an artist no new light has been thrown*; but a picture known by documents to be by him and Pierre Vilatte, which had remained neglected and unobserved at Chantilly, has been brought to notice. This, however, scarcely adds

* His life had already been outlined by the researches of the Abbé Réquin and M. Gustave Bayle.

to the reputation which the masterpiece from Villeneuve-les-Avignons has gained.

With regard to one other artist of Provence, Nicholas Froment, evidence is accumulating. Here again we owe much to M. Hulin's discrimination. Herr von Kaufmann lent to the exhibition a picture of the raising of Lazarus (81), which was clearly the prototype of Froment's signed picture of the same subject in the Uffizi. M. Bouchot, following Dr Friedländer, was inclined on that ground to ascribe it to Froment himself, oblivious of the fact of its immense superiority in drawing and its more purely Netherlandish technique. M. Hulin has shown strong reasons for supposing that it was by one of the Netherland artists whom King René invited to his court, perhaps Copin Delf, of whom we have accounts; and that the picture was painted by him in Provence, and became a model to the purely derivative and second-rate native artist Nicholas Froment.

If the French school were composed only of artists like Froment, who merely achieved more or less successful copies of Flemish work, or like the Fontainebleau painters of the sixteenth century, who merely copied the decadent Italians, we should be right in denying any real significance to French medieval art; but, even admitting that it was always a meeting-place of influences from North and South, and acknowledging the pre-eminence of men of Teutonic race in originating the new ideas of the fifteenth century, we yet must recognise the persistence of a strongly marked national temperament, which colours the work produced on French soil. Even if the French tradition of painting did not radiate its influence upon surrounding countries, even if it was rather receptive than creative, it nevertheless maintained a certain national individuality, which makes it worthy of study for all those who are anxious to mark and store up in their minds any distinct mode of the human imagination.

R. E. FRY.

Art. XII.—HIGHER EDUCATION IN WALES.

1. *General Report of the Central Welsh Board of Intermediate Education.* Oxford: Horace Hart, 1903.
2. *Calendar of the University of Wales.* Oswestry: Woodall and Co., 1903.
3. *Report of the Departmental Committee on Intermediate and Higher Education in Wales, with Minutes of Evidence.* London: Spottiswoode, 1881. [C. 3047.]

THE organised resistance of the Welsh local authorities to the Education Act of 1902 has precipitated in the Principality a crisis so acute as to call for the intervention of Parliament. The compact Nonconformist majorities on the Welsh county and borough councils, disdaining the ineffectual methods of the English 'passive resister,' have taken the law into their own hands, and have, for some time past, been administering the Act in a way which has seriously perturbed the Board of Education. Hence the enactment at the close of the last parliamentary session of the measure known as the Education (Local Authority Default) Act. No useful purpose could, in our opinion, be served by any attempt, however well-meant or impartial, to discuss at the present juncture the merits of the unfortunate controversy which so sorely disturbs the educational peace of Wales. The situation, we admit, is not without its grave dangers; and a prolongation of the struggle may seriously imperil the stability of the entire fabric of elementary education in the Principality. But what we do not despair of seeing, even yet, is a settlement by mutual consent which will relieve the Board of Education of the necessity of resorting to the somewhat invidious powers conferred upon it by the Default Act.

Such, at least, is the hope inspired by recent educational developments in the Principality, and by the temper in which the Welsh people have long been in the habit of approaching educational questions. For it is not so much the danger of the present situation that, for the moment, impresses the student of Welsh educational movements as its irony. That a local authority in Wales, of all places, should be found in default in administering an Education

Act, of all things, is indeed a strange anomaly. Far from having had to bring pressure upon Welsh public bodies to adopt educational reforms, Parliament has for many years past quite failed to keep pace with the demands of Wales for measures and money to enable her to carry out her educational schemes. In her struggle for higher education, at least, Wales has had to overcome the indifference, if not the hostility, of a long succession of Governments. She owes comparatively little to the Legislature or to the initiative of any department of State. The Welsh Intermediate Education Act of 1889, and the parliamentary grants in aid of the University of Wales and its colleges, were obtained only after years of agitation and importunity. Parliament and the Treasury only came to her assistance after local effort had assumed such proportions as to put the State to shame. For the Welsh educational movement of the last quarter of a century has been pre-eminently a spontaneous and self-dependent national effort. It has proved conclusively that the last charge which can be laid at the doors of the Welsh people is a want of real concern for education; and those who are tempted, in their impatience with the present educational quarrel, to level this accusation against them, will find their sufficient refutation in the secondary schools and the university colleges, which are, in a sense applicable to no other educational institutions in these islands, monuments of the disciplined enthusiasm and self-sacrifice of the common people.

The reality of this popular concern for education in Wales was never more apparent than on the eve of the introduction of the Education Bill of 1902. The rapid progress of the secondary schools, together with the influences of the higher culture brought in with the university colleges, had served to reveal to the Welsh people the grave defects of their elementary schools. So startling, indeed, was the contrast between the condition of higher and that of elementary education in Wales, as to provoke some English educationalists to the criticism that the educational reformers of Wales had 'begun at the wrong end.' These critics, however, were either ignorant of, or had forgotten, the fact that the movement for higher education in the Principality was itself the result of a long and self-sacrificing effort

on behalf of primary education. During the first half of the nineteenth century the condition of primary education in Wales—as the notorious Report of the Commissioners of 1846 sufficiently indicates—was deplorable indeed. The efforts of the late Sir Hugh Owen and other educational reformers, both Churchmen and Non-conformists, led to a very great improvement between the years 1850 and 1870. It is true that the rivalry between Church and Dissent, and divided counsels among the Dissenters themselves, did much to retard progress on ordered and harmonious lines. But underneath the strife of parties and sects there lay a genuine and urgent desire for education, which deeply impressed even those who were most keenly alive to the limitations of the denominational forms which it assumed. The Education Act of 1870 marked the dawn of a new era. The establishment of the school-board system, especially, just suited at the time a people so predominantly Nonconformist as that of Wales. The result was that by the year 1902, Wales had, relatively to its population, a far larger number of school-boards than England.

But, in the meantime, the establishment and the rapid growth of the secondary schools had made the reform of elementary education a matter of even greater urgency in Wales than in England. The Intermediate Education Act of 1889 had, in particular, opened people's eyes in Wales to the advantages of a more comprehensive system of educational administration. Why should the elementary schools—the plain man began to ask—continue to be governed either by an indefinite number of small and independent school-boards, or by denominational committees with little or no sense of public responsibility? Why should they not be placed under the infinitely more competent control of the county and the local governing bodies which, jointly, had charge of secondary education? Why, again, should the elementary schools of Wales have no common economy save that provided by the distant authority of Whitehall, while the secondary schools had a national Board of their own to examine and inspect them, to direct their studies, and to advise on all matters affecting their common interests? In fine, why should not Wales have a uniform system of administration for the two types of school, with a national

Education Board or Council regulating and co-ordinating the entire educational machinery of the Principality?

The defects of the elementary system were, indeed, only too patent. The multiplication of school-boards, which had for a time served a useful purpose, had become a source of melancholy waste and weakness. Some of the Welsh rural districts afforded probably the most flagrant examples in the whole country of petty parochialism in educational administration. Many of the school-board areas, each of which, as a rule, had its separate clerk and separate attendance-officer, were altogether too small to secure efficiency in school management. In spite of the multitude of attendance-officers, the average percentages of school attendance in some of the Welsh counties were among the lowest, if not actually the lowest, in the whole kingdom. The condition of the voluntary schools, again, both in respect of accommodation and of the quality of their teaching, was notoriously bad in many parts of the Principality. Not even in the remotest corners of rural England was there greater need than in some of the Welsh country parishes of putting denominational schools under a public authority determined to make and to keep them structurally and educationally efficient. Lastly, the secondary schools had been long enough at work to bring to light an imperative need for proper co-ordination of secondary and primary education. Complaints of overlapping had become rife; and the lack of due co-operation and sympathy between the primary and the secondary teachers was a cause, not only of constant friction, but of serious detriment to the educational interests of a large class of children.

It will thus be seen that in Wales the paramount need of reform in 1902 was felt in the domain of primary education. In England, on the other hand, the chief, if not, as Matthew Arnold had long since insisted, 'the one thing needful' was to 'organise secondary education.' In Wales, secondary education was organised; and the machinery set up by the Act of 1889 had, by general consent, worked well. Clearly, then, what was wanted in Wales was to invest the county and the local governing bodies created under that Act with the administration of primary as well as of secondary education. And this, indeed, was what the Government, in deference to the

supposed wishes of the Welsh members of Parliament, was at one time prepared to do. The Welsh county governing bodies were to be constituted the statutory education authorities under the Act of 1902. But, as time went on and controversy over the Bill waxed hotter, the Welsh members shifted their ground; and an amendment was carried assimilating in every respect the machinery of administration in Wales to that of England. This innocent-looking amendment has been one of the main causes of the present dislocation in Wales, and would never have been proposed but for the denominational issues raised by the Government's provisions for the maintenance of the voluntary schools. The substitution of the county and borough councils for the county governing bodies as the education authorities was a purely strategical move on the part of those who foresaw that the councils, being directly representative of the ratepayers, were far more likely to combine in an organised movement against the Act than were bodies on which the representatives of the rating authority had only a bare majority.

From a strictly educational point of view, the outlook is, indeed, depressing. Here we have an Act which, on the admission of its severest critics, is capable of remedying all the more glaring defects and abuses of our system of primary education. It abolishes small administrative areas. It brings the primary and the secondary schools under the control of one authority. It enables the local authorities to spend money as liberally as they please to improve the equipment and the efficiency of the elementary schools. It empowers them to make, for the first time, effective local provision for the training of teachers. Yet these advantages are for the moment all but lost to Wales owing to the preoccupation of the local authorities with denominational and party issues. So long as the administrative authorities concentrate so much of their attention upon stratagems for out-manceuvring the Board of Education, it is idle to expect them to make a wise and liberal use of their powers under the Act in directions where they would be free from bureaucratic interference.

It is not elementary education alone that is threatened by the present crisis in the Principality. The welfare of

the intermediate schools is intimately bound up with the issue of the quarrel, and with the constitution and the temper of the local education authorities during the next few years. The future is indeed full of uncertainty for the secondary schools. They have seen the sudden dissolution of the governing bodies under which they had so prospered from their birth, to find in their place new county committees, including, indeed, a considerable proportion of the members of the defunct bodies, but shorn almost altogether of the co-opted and professional element upon which the teachers, in particular, most relied for sympathy and expert advice. They find further that these newly-constituted committees have, for the moment, but little leisure for the consideration of the many difficult problems awaiting solution in what is still but an experimental stage of secondary education. Elementary education, and that almost entirely in its financial and controversial aspects, holds the field. And all this dislocation has been precipitated just at a time when the secondary schools were beginning to get, as it were, into their stride, and when a period had been reached in their development at which it seemed opportune to take stock of their work and to effect several improvements in their organisation and equipment. Even in the present unsettled condition of things it may not perhaps be altogether unprofitable to attempt a brief survey of the secondary education movement, with a view to appraising some of its results and gauging some of its tendencies. Its history is worth recording, were it only to show what the Welsh people are capable of in the way of sustained enthusiasm and united effort in the cause of education.

The turning-point in the history of higher education in Wales was the inquiry conducted in 1880-81 by the Departmental Committee presided over by the late Lord Aberdare. The Report of Lord Aberdare's Committee may justly be called the educational charter of modern Wales, for the Principality owes to it both its secondary schools and its state-endowed colleges. It is, however, but a very inadequate notion of the importance and significance of the inquiry of 1880 that can be derived from the Report alone. To discover at once the lively

and wide-spread interest aroused by the Departmental Committee's progress through the Principality, and the value of the opportunities thus afforded to representatives of every section of the Welsh people of giving, for the first time, full and free expression to their educational wants and ideals, one must turn to the minutes of evidence. No one who takes the trouble to read them can fail to be impressed by the passionate desire for education among the common people, by the heroic, and often pathetically futile, voluntary efforts to provide it, and by the strongly-marked national self-consciousness which led the Welsh people to desire and to work for a system of higher education adapted to their own special and separate needs, which these minutes reveal. If the aggregate effect of the inquiry was to demonstrate, above everything, the imperative need of the guiding hand of the State amid a chaos of conflicting aims and ideals, it served at the same time to produce unmistakable proofs and guarantees of the readiness of the Welsh people to respond to and to supplement whatever assistance the State might give them.

The summary of the evidence which is given in the earlier pages of the Report reveals, first of all, the utterly inadequate and precarious character of the provision for secondary and higher education then existing in the Principality. Secondary or intermediate education, such as it was, was provided by the endowed grammar-schools, by proprietary schools of recent foundation, and by schools conducted by private enterprise. In 1880 Wales and Monmouthshire possessed, in all, twenty-seven grammar-schools; and a detailed account of their condition in that year is given in the Report. During the first half of the century most of these schools had been allowed to lapse into a state of gross inefficiency and decay. The late Sir Thomas Phillips, writing in 1849 in the bulky educational document to which he gave the comprehensive title of 'Wales,' complains of 'the extensive decay' of the grammar-schools, and attributes it 'partly to the influence of social changes and natural causes, and partly to the defective government to which they are subjected, and the imperfect provision made by our law for the correction of abuses to which they are exposed.' In 1864-66 the Welsh grammar-schools were

inspected, and reported upon, by the Schools Inquiry Commissioners; and nearly all of them had, by the year 1880, been reorganised and regulated by schemes under the Endowed Schools Acts. At the date of the Departmental Inquiry these schools educated, between them, 1540 boys, 'of whom,' the Report tells us, 'probably 1200 might be set down as natives of the country.' The number of pupils, both boys and girls, attending the proprietary and private schools was, so far as the Committee could ascertain, 4367. Four reasons are given for the comparative failure of the grammar-schools: their remoteness from large centres of population, their inability to adapt their organisation and instruction to the needs of their own districts, the imperfect estimate formed by parents of what constitutes a good education, and the distrust entertained by the Nonconformists of what were, in the common opinion, 'Church institutions.' The Committee conclude their survey of the condition of the secondary schools with a calculation of the approximate extent of the provision which ought to be made for the secondary education of boys in the Principality:—

'In the Report of the Schools Inquiry Commissioners, estimates are given which indicate that about sixteen boys in every thousand of the population should be receiving education higher than elementary. Taking the population of Wales and Monmouthshire to be about 1,570,000, and reducing the estimate, in consideration of the exceptional conditions of Wales, from sixteen to ten per thousand, intermediate school accommodation should be provided for 15,700 boys, and that number ought to be in attendance.'

These are, of course, ideal figures. Tried by the test of a few years' actual experience, they would seem to indicate that the Departmental Committee greatly overestimated the Principality's real needs. According to the last Report of the Central Welsh Board, the total number of pupils, both boys and girls, attending the Welsh county schools in 1902-3 was 8789. This number is distributed among ninety-five schools; and few, if any, Welsh educationalists would to-day be prepared to argue that the supply of schools is inadequate. In some of the more populous districts the existing school accommodation may be found insufficient; but, taking the Princi-

pality as a whole, the present provision for intermediate education is likely to prove equal to the demand for some years to come. But whether the estimate formed by the Departmental Committee of the number of those who ought to be receiving intermediate education was extravagant or not, they appear to have altogether underestimated the cost of providing it. Their recommendations on this head seem, indeed, almost ludicrously perfunctory and hesitating, when read in the light of what has happened since. They enumerate four possible sources of revenue, viz., elementary school and other charitable endowments connected with Wales, voluntary subscriptions, a local rate, and a parliamentary grant. The first two are summarily dismissed as being too precarious to be taken into serious account; and the obvious conclusion is 'that recourse must be had to a local rate, or to a parliamentary grant, or to both.'

The legislative sequel to the Departmental Committee's Report was the Intermediate Education Act of 1889. That Act provided both for the levying of a local rate and for an equivalent parliamentary grant. The Committee had endorsed in their Report the opinion of one of their principal witnesses that 'the charge on the rate should in no case be in excess of one halfpenny in the pound.' A halfpenny rate, accordingly, was all that the sponsors of the Act had the courage to propose. The Welsh people generally were more than satisfied. The Welsh members were universally congratulated on having wrung from an unwilling Government a far-reaching and generous measure of educational reform. But there were a few shrewd and experienced educationalists who maintained all along that neither in Wales nor anywhere else could an efficient system of secondary education be built upon a half-penny rate. As it happened, a lucky accident saved the Welsh local authorities from attempting so hazardous an experiment. A year after the passing of the Intermediate Education Act, and before any Welsh council had completed its preparations for administering it, there came the unexpected windfall of the 'whisky money.' With one consent the Welsh authorities decided to apply the whole of the money accruing annually under the Customs and Excise Act to secondary education purposes. Many of them subsequently added to their

resources by raising either the whole or a part of the penny rate allowed by the Technical Instruction Acts. But it was the 'whisky money,' and that alone, that saved the situation.

With all its hesitancies and imperfections, however, the Report of Lord Aberdare's Committee gave an immense impetus to educational effort in the Principality. It stirred the Welsh people so profoundly that within three years of its publication they had founded, entirely by voluntary subscriptions, two university colleges in addition to the one they had already, by similar means, both founded and maintained at Aberystwyth. Five years later they secured their Intermediate Education Act, and proceeded to administer it in the resolute and thorough-going manner of which their prompt use of the 'whisky money' affords a characteristic example. So stirring a story is this of popular zeal and enthusiasm in the cause of educational reform that a former secretary of the Charity Commission could only describe it as a 'romance.' Speaking at Keighley in Yorkshire in January 1898, Mr D. R. Fearon, who had followed the whole course of the movement for intermediate education from his official vantage-ground at Whitehall, thus proceeds to justify his use of such a term :—

'The Departmental Committee made its report in 1881. We are familiar in England with that kind of enthusiasm for a cause which exhausts itself in the process of preliminary examination. It not unfrequently happens that the desire for a measure of legislation is sufficiently strong to induce a Government to direct an inquiry by means of a Royal Commission or otherwise, and then evaporates. But this was not the way in which the Welsh people dealt with the report of Lord Aberdare's Committee. They quickly and unanimously resolved what they wanted, and they soon translated their resolutions into energetic and unceasing action. Throughout the years 1886-1888 they repeatedly, persistently, and unanimously, by deputations, by their representatives in Parliament, and by private attempts at legislation, pressed the question on the attention alike of Liberal and Conservative Governments, until, in the summer of 1889, they obtained the Welsh Intermediate Education Act. By an early date in 1890 an Education Committee had been duly formed in every county and county-borough to which the Act applied; and before

the close of the year these Committees began to make to the Charity Commissioners their statutory proposals for schemes, the county of Carnarvon leading the way. In an incredibly short period of time the county school system was completely established and in active operation throughout Wales and Monmouthshire. In May 1896 the scheme for the Central Welsh Board, which brings and keeps together the whole system, received the approval of the Crown.'

No such educational reform as this, Mr Fearon declared, had been accomplished within the same space of time in any European country.

Although, as we have seen, the numbers in attendance at the schools fall far short of the estimate formed by Lord Aberdare's Committee, the growth and the success of the Welsh secondary system during the short time it has been in operation have been remarkable. The extent and character of the results achieved may in some measure be inferred from the statistics given in the Report of the Central Welsh Board for 1903. Of the 95 schools, either reorganised or newly-founded by schemes under the Act of 1889, 18 are boys' and 21 are girls' schools, while 47 are returned as 'dual,' and 9 as 'mixed' schools. The number of scholars on the rolls in 1902-3 was 8789, of whom 4475 were boys and 4314 girls. The staffs of the schools comprise 204 assistant masters and 215 assistant mistresses, who, with the head-masters and mistresses, make up a total roll of 503 teachers. The average salary paid to assistant masters is returned at 127*l.* 18*s.* 6*d.*, and that to assistant mistresses as 105*l.* 10*s.* 6*d.* The average salary of the head teachers is not stated. The aggregate sum paid in scholarships and bursaries derived from all sources, including 'school district funds,' 'scholarship district funds,' and sundry charitable endowments amounted in 1902-3 to 14,307*l.* 5*s.* 8*d.*

Turning from the statistical part of the Report to the comments which the Chief Inspector has made upon the present condition and prospects of the schools, we discover that, admirably organised though the Welsh intermediate system is, it has not yet passed the stage of experiment. Its development, as the Chief Inspector states, is being closely watched by educationalists all over the country; and, now that the organisation of secondary education is proceeding apace in England, English educa-

tional authorities may learn much and will be saved from some blunders by consulting the experience of Wales. Wales, as we have seen, has neglected no available source of revenue to make the Intermediate Education Act a success; the local authorities have virtually used up every penny within their reach for purposes of secondary and technical education. The result is that at the present moment the Principality spends on education out of local rates almost twice as much money, in proportion to its population, as England (excluding London), and considerably more than Scotland.* Notwithstanding, however, the apparently liberal provision made in Wales for intermediate education, the first thing to which the Chief Inspector calls 'the serious attention of the Local Education Authorities' is the financial position.

'If the schools,' he declares, 'are to accomplish all that is expected of them, it is essential that the maintenance funds in the aggregate should be increased by a sum of not less than 40,000*l*.'

The Inspector does not specify the purposes for which this additional income is required; but it is easy to surmise what they are. The complaints that have been made for a considerable time past by the governing bodies and by head teachers have revealed that many of the schools are deficient in accommodation and apparatus, that several are understaffed, and that the salaries paid are in general too low to attract and to retain the services of the best class of teachers. Fortunately, the Education Act of 1902 provides means of meeting the financial difficulty; and it is to this source of relief that the Chief Inspector turns. An addition of another half-penny to the existing county rate for intermediate education will, in his opinion, enable the schools to tide over immediate difficulties. 'It is possible,' he continues, 'that in a few counties in which the rateable value is low, a 1½*d*., or even a 1¼*d*. rate, will be required.' Heavily rated for educational purposes though they are already, we have no doubt that the Welsh people will cheerfully submit to this additional impost.

* The amount per head of the population, according to the latest returns, stands at 3*s*. in England, 4*s*. 10½*d*. in Scotland, and 5*s*. 8½*d*. in Wales.

But an increased rate will not by any means solve all the present and prospective difficulties of the schools. The Chief Inspector calls attention to two problems in particular which the local authorities have now to face, and for the solution of which much expert knowledge is required. They are the co-ordination of secondary and primary instruction, and the 'differentiation' of the secondary schools themselves. Dealing, first of all, with the differentiation of schools, the Inspector, while reminding local governing bodies of the freedom of initiative which they possess in determining school curricula, gives no specific examples of the kind and extent of the differentiation that might be attempted. What the public want to know is how far it is possible, without sacrificing anything that is essential to a sound and liberal school education, to modify the curriculum of a particular school to suit the circumstances and the needs of its locality. Is it possible, without detriment to the general educational interests of the districts affected, to have in certain areas schools predominantly classical or literary, and in others schools in which prominence is given to scientific, technical, or commercial subjects? Can a school at Cardiff or Bangor, for example, safely assume a strongly-marked literary or commercial character, while a school in the Rhondda Valley or in the Snowdonian quarry district developes on equally specialised technical or scientific lines? It seems to us that schools cannot be safely and effectually differentiated in this way unless some scheme can be devised for an interchange of pupils. By a more liberal and, at the same time, more discriminating system of awarding bursaries and exhibitions much might be done, in districts where the schools are fairly near each other, to enable the more promising pupils in each school to proceed, after reaching a certain stage, to the type of school best suited for their special requirements and aptitudes. Some such arrangement is advocated by one of the Central Board's examiners. Professor R. S. Conway concludes his report by

'urging again upon the serious attention of all friends of higher education in Wales the suggestion made last year, that the different counties should arrange that some number of their exhibitions should be interchangeable, so that if clever pupils are interested in a particular subject which is not

taught at an advanced stage in the school they have first attended, and if, as is often the case, they have opportunity of attending school in some other place where the subject is especially well taught, and where they happen to have friends at whose house they could live, the counties should encourage them to do so. Since last year I have found that an arrangement of this kind is in force between some of the English counties; and, in my opinion, a change of this kind is urgently needed in Wales, if the higher stages of teaching in any subject are to be preserved, and if the best teachers in all subjects whom Wales possesses are to be relieved of the depressing conditions under which at present their highest work is done.'

By differentiation, it is hardly necessary to say, we mean differentiation only in the advanced classes of the schools. Nothing could be more fatal to the interests of sound education in the Principality than premature specialisation in the secondary schools. The Board of Education, according to their last Annual Report, already notice in English secondary schools a dangerous tendency to substitute a too exclusively scientific for a truly liberal education. In Wales the cry for 'bread and butter studies' has not, as yet, become loud enough to tempt the governing bodies of the schools to take any very hazardous liberties with their curricula; but, as time goes on, the demand for the teaching of scientific and technical subjects is bound to become more and more insistent. It will be the duty of the local education authorities to see that their concessions to this legitimate demand shall not involve the ejection from the curriculum of any school of studies which are the foundation of a really liberal education.

Even more immediately important than the question of the differentiation of the secondary schools is that of their proper co-ordination with the primary schools. A constant complaint of the Welsh secondary school teachers, and one which finds an echo in the Chief Inspector's report, is that their pupils are prematurely withdrawn from the schools. It is an equally common complaint that a large number of their pupils come to them too late. The primary school teacher has considerably fewer temptations now than heretofore to keep under his tuition children who, under any properly co-ordinated

system, ought long since to have been drafted into the secondary school; but they are still sufficiently strong to induce an unscrupulous teacher to exploit, for various purposes, clever children in the higher standards of his school. The belated arrival and the premature withdrawal of secondary school pupils are, however, both mainly due to an inadequate conception of the respective functions of primary and secondary education. In Wales, as elsewhere, there is a too prevalent tendency to regard them as 'the lower and upper storeys of a single tenement' rather than as 'two adjacent tenements with an easy passage from near the top of the lower to the mezzanine floor of the higher of the two houses.'*

The quarrel about 'overlapping' too often arises out of a complete misapprehension of the nature of the problem. For a certain class of pupils the primary school must provide instruction in many subjects approximately of the same type and of the same grade as that provided in the secondary schools for another class. It is only a comparatively small proportion, after all, of the children in the elementary schools who can, under present conditions, hope to enter a secondary school at all. The great majority will necessarily remain in the primary school until they attain the age of thirteen or fourteen, and pass, if they can, the seventh standard. But those who are to proceed to the secondary school should leave the primary school at a much earlier age. The 'overlapping,' which gives legitimate cause of complaint, and is productive of serious educational mischief, is that which occurs when children who have reached an age, and are sufficiently advanced, to begin a profitable course of secondary instruction are deliberately detained in the primary school at the caprice, or in order to serve the self-interest, of the primary teacher. It is here that co-ordination is most urgently required; and it has become possible now that the two grades of schools are under the control of a single authority.

These and other kindred educational problems, which now press for the consideration of the Welsh education authorities, are, however, of slight moment in comparison with the paramount need of stimulating and informing

* 'What is Secondary Education?' Essays edited by R. P. Scott, p. 168.

popular interest in the work of the schools. The ultimate success of the Welsh secondary system will depend, after all, upon the faithfulness of the Welsh people themselves to a high ideal of educational aim and accomplishment. Neither perfect organisation nor abundance of revenue will, of themselves, assure the sound growth of the schools in educational stature and efficiency. They will always need the vitalising impulse and sustenance of the popular enthusiasm to which they owe their being. The pioneers of Welsh educational reform in the sixties and the seventies had, perhaps, no very precise conception of what secondary education ought to be, or how secondary schools were to be provided, governed and financed. But they were inspired, above everything, by a profound conviction of the value of education, and by an unwavering determination to place within the reach of every child in Wales the best education which the country could supply. It is this faith in education, and this ardour in the pursuit of the best that can be got, that the Welsh people have need to cherish more than ever, now that they have entered into possession of an educational fabric so spacious in design and so attractive, in many ways, in its external appliances and appointments. The men who put into practice the recommendations of Lord Aberdare's Committee 'built better than they knew.' They have laid upon the present generation in Wales obligations and responsibilities which will tax to the utmost the resolution and the sagacity of the stoutest hearts and wisest heads. Hence the necessity of enlisting in the work of educational administration the best men the Principality can produce. It is but a too obvious truism that the schools will be just what the teachers make them; but it is not so generally realised that the quality of the teaching will inevitably correspond in large measure to the quality of the administration. Good teachers will always be found, and will always do their duty, so long as the education authorities remain faithful to a high and liberal conception of their trust.

Even more remarkable in some respects than the history of the foundation of the secondary schools is that of the movement for the establishment of the three state-endowed colleges of Wales and their federation under a

common university charter. Long before the Departmental Inquiry of 1880 took place, a number of patriotic Welshmen had combined in a strenuous effort to establish and maintain, without state assistance of any kind, a national college which they hoped would ultimately make good its claim to the full privileges of a university. This bold enterprise first assumed a definite and an organised form at a small meeting held in London in December, 1863. That meeting pledged itself

‘to seek the immediate establishment of a University, whose course of education shall be comprehensive and complete, and whose degrees and distinctions shall be of standard value among educated men.’ . . . ‘The University’ (it went on to declare) ‘should be a truly national institution, located in the country, presenting accessible means of liberal culture at a moderate cost, and commanding, by reason of its national character, the fullest confidence of the people.’

While recognising that an undertaking of such magnitude could not be carried to a successful issue without government aid, the meeting appealed to the Welsh people to ‘show an adequate interest in the question’ by raising ‘a national fund to meet in part the necessary outlay.’ One of the first steps taken by the committee charged with the execution of this ambitious project was to approach the authorities of St David’s College, Lampeter, with a view to the inclusion of that foundation in the proposed university.

St David’s College, opened in 1827 ‘for the reception and education of persons destined for Holy Orders,’ had obtained in 1852 a charter empowering it to confer the degree of Bachelor of Divinity, and had thus some small claim to consider itself as of university rank. At a conference held in 1864 between representatives of the University Committee and of the governing body of St David’s College, it was resolved that ‘a new college of an entirely open and unsectarian character’ should, together with St David’s College, which was to retain ‘its distinctive character as a Church of England College,’ ‘constitute one university having its chancellor, vice-chancellor, senate, etc., who shall have the right of conferring degrees in arts and science.’ It will thus be seen that the university builders of 1864 started with the idea,

which their successors eventually carried out, of establishing a federal university. For some mysterious reason, however, the negotiations with St David's College were abruptly broken off. The Lampeter authorities appear to have been seized by a sudden distrust of the new movement, and to have decided upon a course of action more immediately profitable to themselves as an independent academic body. At any rate, we find that in 1865 St David's College obtained an enlargement of its charter empowering it to confer the additional degree of B.A.

The failure to secure the co-operation of St David's College did not discourage the University Committee; but they soon discovered that their original design had been conceived on too ambitious a scale. As time went on, they were obliged to confine their efforts to the establishment at Aberystwyth of an institution which, though it eventually bore the name of the University College of Wales, fell very far short of the national university of their dreams. It was by an accident that the college came to be located at Aberystwyth. In 1867 the committee were offered the option of purchasing, at a comparatively small cost, a large building in that town originally meant for a hotel. They closed with the offer; and, after a long and trying public canvass for funds, the University College of Wales opened its doors in 1872 to twenty-six students. At the time of the Departmental Inquiry, the number of students was only fifty-seven; and the committee were obliged to report that 'the college had disappointed the hopes of its supporters.'

'The college is maintained,' the Report continues, 'at a cost to its supporters of at least 2500*l.*; and increasing difficulty is felt in obtaining the necessary subscriptions; and it was stated that without Government assistance the institution must collapse.'

Yet it may be questioned whether, but for the popular interest in and support of the Aberystwyth College during the critical period from 1872 to 1880, the Departmental inquiry would ever have been held. It was to the character and the extent of the subscriptions and popular collections in aid of the college during those years that the parliamentary and other advocates of Welsh educational reform constantly pointed as the para-

mount proof of the Welsh people's desire for higher education and of their self-sacrifice in the effort to provide it.

In spite of the apparent failure of the Aberystwyth College, Lord Aberdare's Committee attacked the problem of providing university education in the Principality with courage and firm faith in the future. They recommended the establishment of an additional university college to be located in the more populous districts of South Wales, while the Aberystwyth College, whether retained in that town or removed to Bangor or Carnarvon, was to be accepted as the university college for North Wales. Each of the two colleges was to receive an annual parliamentary grant of, at least, 4000*l*. The desirability of establishing a degree-giving university for Wales is discussed in the Report at some length; and, after referring to the fact that there already existed in Wales 'not indeed a university in the true meaning of the term, but an institution with the power of conferring degrees'—viz., St David's College, Lampeter—the Committee recommended the withdrawal of the St David's College charter, and the substitution for it of a new charter, 'whereby the power of conferring degrees should be given to a syndicate or board, consisting of representatives in equal numbers of the governing bodies of St David's College, the university college at Aberystwyth, and any other college, being a place of advanced secular instruction, which may be affiliated for the purpose.'

The University of Wales was founded by royal charter some twelve years after the publication of the Departmental Committee's Report; but St David's College was not included among its constituent colleges. Its exclusion was due partly to denominational causes and partly to the fact that the establishment and the unexpectedly rapid growth of three university colleges had, in the interval, entirely changed the academic situation. For the proposals of Lord Aberdare's Committee for the foundation of state-endowed colleges had met with a response which astonished, and for a time even alarmed, the educational statesmen of the Principality. In 1882 the University College of Wales received, in accordance with the Committee's recommendation, its first annual grant from the Treasury of 4000*l*. But it soon became apparent that North Wales was not prepared to accept as its own a university college situated

in a South Welsh county. Strong pressure was brought upon the authorities of the Aberystwyth College to induce them to consent to the removal of that institution further north, but without avail. Early in 1883 an influential committee was formed for the establishment of a separate university college for North Wales; and over 30,000*l.* was subscribed for the purpose within the short space of twelve months, the total number of subscribers being nearly eight thousand. In October 1884 the new college was opened at Bangor. In the meantime, in pursuance of the second recommendation of the Departmental Committee, a university college for South Wales had, by a similar popular effort, been founded and opened at Cardiff and endowed with an annual parliamentary grant of 4000*l.* Some ill-feeling was aroused by the transference in 1884 to the Bangor College of the grant which, two years previously, had been voted to Aberystwyth. The Government endeavoured to pacify the friends of Aberystwyth by voting to the college a separate grant of 2500*l.* for the year 1884; but this only led to a loud popular outcry for equality of treatment for all three colleges, and in the following year the Government was forced to raise the grant to 4000*l.* Educational zeal and local feeling had thus altogether outrun the Departmental Committee's recommendations; and grave apprehensions were for a time generally entertained as to the ability of the Principality to maintain three institutions of so ambitious a type. How groundless were those fears is shown by the fact that to-day the three university colleges, between them, educate over thirteen hundred students.

Even by the year 1889 the colleges had become strong enough, and had sufficient faith in their own future, to combine in a movement for their incorporation as a university. After a long series of conferences, a charter was drafted and received the royal sanction on November 30, 1893. In its constitution and government the University of Wales is undoubtedly the most democratic institution of its kind in the United Kingdom. The strength of the popular movement for the establishment of the Welsh colleges, and a provision that the University for many years to come would be compelled to look to the municipal and other public authorities of the Principality for the enlargement of its revenues and its privileges, led the

founders of the University to enlist in its government a wide variety of interests. The University Court consists of a hundred members, of whom thirteen are appointed by the Crown, twenty-six by the county and borough councils of Wales, thirty-six by the governors, councils, and senates respectively of the three constituent colleges, thirteen by the Guild of Graduates, six by the masters and mistresses of secondary and primary schools, and six by the Central Welsh Board of Intermediate Education.

The Senate of the University consists of those teachers who, for the time being, are heads of the departments of study recognised by the University in the three constituent colleges. The executive head of the Senate is the vice-chancellor; and the office must, according to the charter, be held by the principals of the university colleges in rotation. The Senate has no direct representation on the University Court, such members of the Senate as have a seat on the Court being elected either by their colleges or by the Guild of Graduates. The Guild is composed of the graduates of the University and the entire teaching staffs of the constituent colleges, and corresponds to the Convocation of other universities. Although no act of the Senate is valid until it has received the formal sanction of the University Court, in all strictly academic matters the authority of the Senate is virtually supreme. The right of initiative in proposing courses of study is possessed by the constituent colleges; but every such proposal must be submitted to the full University Senate before being presented to the Court for acceptance. The Court cannot promulgate, alter, or abrogate any statute, regulation, or bylaw affecting schemes of study or examinations except either on the recommendation of the Senate, or after the Senate has had 'a reasonable opportunity of considering and reporting' upon the matter.

In one department of study, however—and this will seem to many to be an anomaly—the Senate possesses no authority. By their constitution all the three university colleges are prohibited from teaching theological subjects. But, as the University is empowered by its charter to give degrees in the faculty of theology, it has been found necessary to create a special Board of Theological Studies, the members of which are appointed partly by the Court, the Senate, and the Guild of the University, and partly by

a number of 'associated' theological colleges. At the present moment only three of the Welsh theological colleges are so 'associated'; and the members of their teaching staffs together constitute the Theological Senate.

Such, in brief outline, is the constitution of the University. Its nearest analogue in the polity of British universities was that of the defunct Victoria University. Like Victoria, the University of Wales represented, on its academic side, a revolt against the old examinational system of the University of London, and is, like the older universities of England and Scotland, at once a teaching and an examining body. It requires a fixed period of residence previous to graduation, and allows a greater choice of subjects in its degree examinations than did the London University before its reconstitution. The government of the University, however, is founded upon a much more democratic basis than was that of Victoria; and its character was largely determined by the unique history and constitution of the three Welsh colleges. The colleges, owing their foundation as they did almost entirely to a remarkable outburst of popular enthusiasm, were obliged to make their governing bodies thoroughly representative both of their subscribers and of the public bodies with which, under the stress of growing needs and responsibilities, they were bound to come more and more in contact.

It thus became inevitable that the government of the University should, in its main features, follow that of the constituent colleges; and the constitution of the University Court will be found to be modelled very largely upon that of the collegiate courts of governors. But, over and above the precedents afforded by the colleges, the founders of the University had an incentive to make its government as popular as they could in the long-cherished ideal of a university 'commanding,' in the words of the pioneers of 1863, 'by reason of its national character, the fullest confidence of the people.' The active sympathy and support of a whole people were, they felt, sources of educational power which even the most pragmatic and punctilious academic mind could not afford to ignore.

It is, at least, in the popular and national character of its polity that the University of Wales finds its chief *raison d'être* as a federal university. For, now that the Victoria University has been dissolved, Wales remains

the last asylum of the federal system in Great Britain; and the question which is to-day being forced upon many minds is—will Wales always be able to maintain this type of university, and, even if she is able, is it desirable that she should? Ten years' experience of university administration has served to reveal practical difficulties which were never anticipated by the framers of the charter. It was obvious from the first that, with the constituent colleges situated so far apart and the facilities of communication between them so poor and intermittent, the federal experiment in Wales would be conducted under much more difficult conditions than those which prevailed in the north of England. It was foreseen, at any rate, that it would be an expensive experiment; and the Welsh colleges had formed an estimate of its cost which justified them in applying, in their petition to the Treasury in 1894, for a grant for university purposes double that which they ultimately received.

Administrative difficulties, however capable they may be of temporary adjustment, will always be found to threaten the cohesion and the stability of the Welsh federal system. Will the bond of national sentiment which now unites the Welsh colleges prove strong enough permanently to bear the strain? The limited financial resources and academic equipment of the colleges oblige them, for the moment, to keep up their alliance at whatever cost and inconvenience. But one of them may, even sooner than is generally expected, find itself able to weigh, from a position of comparative security, the advantages and disadvantages of federation. Chafing under the vexatious bondage of association with two smaller and distantly situated colleges, and emulous of the example of some of the great industrial centres of England in founding universities of their own, Cardiff may at no distant date be tempted to break away. The comparative losses and gains of such a dissolution of partnership open up a wide field of discussion; we cannot here do more than indicate how the problem strikes an eminent educational authority who describes himself as 'a spectator genuinely interested in the fortunes of the University.'*

* 'Some Aspects of Modern University Education,' by Sir Richard Jebb, M.P. An Address delivered at the University College of North Wales, June 19, 1903,

'One of your three colleges is seated in a great commercial town. Suppose, for the sake of argument merely—I have no reason whatever to believe that the thing is probable—suppose that this great town should some day decide to have a university of its own. Then, I presume, one of two things would happen: Bangor and Aberystwyth would go on in federal union; or else Bangor would become the University of North Wales, and Aberystwyth would be left in a position analogous to that in which Leeds found itself when the dissolution was decreed. In view of such possible contingencies, one question before all others would seem to require an answer. Are the drawbacks to the federal system outweighed by the fact that the existing university stands for all Wales, and has the undivided support of Welsh sentiment behind it? An onlooker who thinks as I do would reply unhesitatingly, Yes: the advantage outweighs the drawbacks. To represent Wales is not merely to represent a geographical area and a distinct nationality: it is to represent also a well-marked type of national genius, characterised by certain intellectual bents, by certain literary aptitudes, by certain gifts of imagination and sympathy, specially manifested in the love of poetry and of music; a type of genius which is peculiarly susceptible to the influence of humane studies. A university which is the one academic expression of such a national genius holds a position of unique interest and of peculiar strength. It would be a great pity to break it up into two or three universities, no one of which could have the same prestige. If there were but two universities, one for North Wales and the other for South, the national sentiment would be divided, the strength which it gives would be impaired, and the unavoidable competition, however generous, might possibly be prejudicial to the interests of Welsh education at large.'

The main disability, however, of the University of Wales and of its colleges at the present time arises not so much from the federal system as from their common poverty. It is idle to expect the University to become a school of learning, in a sense in which the German and the older English universities are, without a very large addition to its endowments. In the appendix to his British Association address 'On the Influence of Brain-Power in History,' Sir Norman Lockyer gives a tabulated estimate of 'the sums which, in the opinion of responsible persons at each college, would suffice to place

them in a position to discharge their work with real efficiency.' Since their foundation, over 200,000*l.* has been contributed from voluntary sources of all kinds in aid of the Welsh university colleges; but the expenditure upon buildings and apparatus has been so heavy that the entire present income of the three colleges from private endowments only amounts to the beggarly sum of 2350*l.* From government grants the colleges derive, between them, an annual income of 17,250*l.*, while the University receives a separate grant of 4000*l.* The colleges also receive grants of a considerable amount from county councils; but, as Sir Norman Lockyer points out, these should 'in fairness be counted as fees, not endowments, since they are given in return for teaching a definite class of students, and a change of policy in the local authorities might at any time modify or even divert their contributions.' In order to place the Welsh University on a footing of equal efficiency with the best universities of Germany and America, Sir Norman Lockyer calculates its requirements at the capital sum of four millions sterling. The colleges need 'for buildings and equipment' an aggregate sum of 438,300*l.*, and for endowment a sum of 3,208,300*l.*, while the University needs an additional endowment of 288,400*l.*

'These will not be thought an extravagant figure,' Sir Norman continues, 'when it is remembered that the need of the Birmingham University was estimated at five millions, and that the Welsh colleges minister to the needs of a far more diverse population. The agriculture, the manufactures, the mining, and the over-sea commerce of Wales all demand the enlightenment and intelligence which can only be developed in universities efficiently equipped for their work.'

It is clear that Wales herself cannot raise a tithe of this large sum. For the Principality, as Sir Norman Lockyer admits, 'happily or unhappily, possesses comparatively few men whose individual possessions enable them to take part in endowing her colleges in any way commensurate with the need.' It is to the State that Wales must look for the bulk of the money needed; and, if it be held that the State should in such matters follow the healthy principle of only helping those who have proved their ability to help themselves, then Wales

can point with some confidence to her educational record. The Chancellor of the Exchequer not long since told a deputation from the English provincial colleges that assistance from the Treasury would, in future, be doled out to them in strict proportion to the extent of the local contributions, whether public or private, to their funds. Wales has no need to fear the application of such a test, provided due account be taken of the relative value of her contributions to the number and the means of her population. For Wales cannot hope to compete with Liverpool or Manchester or Birmingham in respect of the actual amount of money subscribed or voted from local sources in aid of her colleges. But in any comparative test, in which regard is had to the number of subscribers and to the proportional value of their contributions, Wales more than holds her own against any other part of the kingdom. Wales, as we have already seen, in proportion to her population, spends on elementary and secondary education all but twice as much money as England; let one instance suffice of how the Welsh people are prepared to tax themselves for university education.

The University College of North Wales is at present engaged in the arduous enterprise of raising a fund of 175,000*l.* for new buildings. The site of the buildings has been provided by the corporation of Bangor at a cost to the ratepayers of 15,000*l.*, representing a contribution of close upon 30*s.* per head of the entire population of the city. A municipal grant on a similar scale in Liverpool would amount to over a million and a half of money. Here, at any rate, is a case not for a Treasury grant equivalent merely to the actual local contribution, but for a grant in some degree proportionate to the magnitude of the individual effort entailed. We trust, however, that when the State comes seriously to face its obligations to university education in this country, the claims of Wales will be considered in no niggling or captious spirit, but with a generous sympathy reciprocal of the zeal and self-sacrifice which her people have so long shown in the cause of education.

But the real welfare of the University, no less than of the secondary schools, depends upon higher considerations than those of finance, of organisation, or of administrative

efficiency. The University, like the schools, will need the constant stimulus of popular interest and of contact with national and civic life. But a university is, in a sense in which no system of schools, however well organised and closely united by common aims and motives, can be, the guardian of its own traditions and the shaper of its own destiny. For it is at once its highest prerogative and its prime duty, while deriving from national and popular sources both power and inspiration, to constitute itself the nursery and the inviolable home of exalted ideals of learning and of life. In the pursuit of its own proper activities it should be independent and fearless alike of the State and of municipalities, of private benefactors and of the populace. A young and, as the University of Wales justly boasts itself to be, a 'popular' university is under the constant temptation to yield to the pressure of external forces. It cannot, like the older universities, provide without fear or concern an asylum for 'lost causes,' or 'unpopular names,' or 'impossible loyalties.' It has its 'constituency' to reckon with. Here, in our opinion, lies the greatest source of danger to the future prosperity and repute of the University of Wales. The desire to be considered 'national,' in the narrow sense of being *en rapport* with the prevalent popular feeling or movement of the moment, may but too often divert it from the path of disinterested intellectual effort and of the dauntless pursuit of knowledge. There are, indeed, many special ways in which the University can serve the Welsh nation without any danger of becoming provincial in its aims; the creation of a really great school of Celtic learning, in which the Welsh language shall retain an honoured place, is but one of these. But the greatest of all national services which the University can render the Welsh people is to keep before them a high and incorruptible standard of work, of culture, of life, and to turn the stream of national feeling which runs so strongly in the Wales of to-day into intellectual channels which will compel the attention and the respect of the best minds of the age.

Art. XIII.—THE CASE OF THE SCOTTISH CHURCHES.

The Free Church of Scotland Appeals, 1903-4. Edited by Robert Low Orr, Advocate. Authorised Report. Edinburgh: Macniven and Wallace. London: Hodder and Stoughton, 1904.

It is hardly possible to exaggerate the gravity of the issues involved in the recent decision upon the case of the Free Church. Another crisis has been reached in the old controversy between Church and State, a crisis of unusual moment both to the particular Churches implicated and to the interests of religious liberty in general. Whether regard be had to the amount of the property at stake and the numbers of the population affected, or to the gravity of the differences of opinion among the judges, or to the feeling aroused in the country, or to the religious and political questions involved, it may be safely asserted that few cases before the House of Lords have equalled this one in its singular combination of material and spiritual importance. A large and flourishing Church, comprising nearly a quarter of the population of Scotland, with a national influence even greater than her numbers represent, and prosecuting extensive missions in Europe, Asia, and Africa, has been suddenly decreed to have lost her identity, through her union with another Church and certain changes in her formulæ which this union required; and to have forfeited in consequence all her invested funds and the bulk of her real estate.

The Free Church of Scotland, which in 1900 combined with the United Presbyterians to form the United Free Church of Scotland, consisted at that time of over 1100 congregations, distributed throughout the country in pursuance of her claim to be a National Church. Her communicants were nearly 300,000; her Sunday classes contained over 200,000 scholars; and, if to these be added her children outside her Sunday schools and her adult adherents not in full communion, it will be seen that she included in her care about a million of the Scottish people. Abroad she had 200 missionaries, 1350 native agents, and nearly 12,000 communicants. But it is not only this multitude who are concerned. The property they brought into the union has for four years been combined with

that of their partners in a fashion which makes the loss of it scarcely less serious to the latter than it is to themselves. To ascertain the full numbers affected, we must take the membership of the United Free Church when the judgment was delivered. In a report to her General Assembly in May last this is given as 501,535, exclusive of adult adherents not in full communion.

The property involved is of two classes. There is, first, that formerly held by the General Trustees for the Free Church as a whole, consisting of invested funds to the amount of about 1,200,000*l.* and real estate in Scotland and abroad. The value of the latter is doubtful, for only part of it is specified in the case. But the Church's three theological colleges are insured for more than 70,000*l.*; her offices and assembly hall cannot be worth less than 50,000*l.*; and the other heritable subjects in Scotland alone must be worth at least 30,000*l.* more. Secondly, there is the congregational property of over 1100 churches, most of them with manse and halls. It is hardly possible to calculate the money value of the latter. But the most moderate estimates of the whole property, including that vested in the General Trustees, reach four or five millions sterling; and the real amount may be much more. The money value, however, is not everything. The property at stake represents the habitation, machinery, and equipment of an organisation whose work at home and abroad is to a great extent dependent on the right to use it, and whose energies, if not paralysed, are embarrassed beyond reckoning by its loss.

All this estate and means of beneficent labour have been taken, then, from a Church of some 300,000 communicants, with over 1100 ministers, besides general officials (to speak only of the Free Church's forces at home), and assigned to what was at the date of the judgment a mere fraction of the Free Church—some thirty ministers with 4000 or 5000 communicants, almost all of whom live in the Highlands and islands. It is, to use Burke's phrase, as 'terrible a revolution in property' as was ever effected by law; and the way in which it has roused public feeling is not surprising. In Scotland the controversy is even greater than that stirred by Mr Gladstone's Home Rule policy. The nation is bitterly divided. A leading journal, which two years ago, when

the Scottish Courts had decided in favour of the United Free Church, declared that a contrary decision would be 'little short of a national calamity,'* now, when the Court of Appeal has given a contrary decision, applauds it with fervour; while other journals of equal standing describe it as 'an error,' 'unjust' and 'monstrous.' The division among the judges and the probability that, but for the death of Lord Shand after the first hearing of the appeal, the decision would have gone the other way, have provoked debate, among not only laymen but lawyers, as to whether the judgment, if sound in law, is correct in fact. Other facts—that most of the property taken from the United Free Church was conferred by men who approved of the union or actually entered it, and that the remnant is apparently too small to administer the trust assigned to it—have raised the question of equity. Nor are lighter causes of excitement wanting. For years the leaders of the Free Church have aimed at the disestablishment of the Church of Scotland; and the irony of the situation, in which, partly because of that policy, they now find their own Church disendowed, is obvious. To multitudes who take no interest in religion, the large financial stakes at issue, as well as the oscillating fortunes of the case, have brought all the exhilaration of a colossal hazard.

There are, of course, problems involved of greater moment than so large a transference of property—the conflicting claims of Church and State, the dangers to religious liberty and theological growth in general. To these we shall return. But our first duty is to review the facts, as well as the processes of law by which such amazing results have been reached, in order to understand not only the points at issue, but the serious differences existing among the judges.

The Free Church of Scotland was formed in 1843 by disruption from the Established Church. For some years the majority of this Church—evangelical in doctrine but 'high' in their conception of the Church's authority—had been asserting her 'spiritual independence' of the courts of the realm. They admitted the jurisdiction of the latter

* The 'Scotsman,' July 5, 1902.

over the civil rights of the Church and the emoluments conferred on her by the State. But they claimed for herself freedom to determine in spiritual and ecclesiastical matters, defined as 'the preaching of the Word, administration of sacraments, admission and suspension of office-bearers, infliction of censures, and generally the whole "power of the keys."' The last phrase is wide, and might be held to include powers to legislate on doctrine; but this is not expressly claimed. The conflicts between the Church and the courts of law were confined to the appointment and discipline of her ministers. The Church claimed the right to veto any presentation to a parish by the patrons, if a majority of heads of families objected to it, and the right to admit to her courts, on an equal footing with the parish ministers, ministers of chapels of ease. Both these claims the courts declared contrary to law. To change the law the Church appealed to the great political parties, to the Crown, and to the House of Commons, all of which repulsed her. Sir Robert Peel said it could not be otherwise while she remained established, since only Roman Catholics and Dissenters were entitled to decide with reference to their own affairs.* The majority took the Premier at his word. They withdrew from the Establishment and formed the Free Church.

While renouncing the status and emoluments of the Establishment, they did not feel they were founding a new Church. They adhered 'to the constitution and standards of the Church of Scotland.' They maintained the Presbyterian discipline, the Confession of Faith, and the Acts by which before 1843 the Church had regulated her constitution. It is this sense of their continuity as a Church which explains the omission of the Disruption fathers to draw up any definite form of constitution. Had such existed, there would not have been room for so serious a difference among the judicial opinions in the recent case. In its absence, the judges have had to infer the Church's rules of association from more or less formal documents, in which she protested her independence of the State, demitted the emoluments which the latter had conferred, invited pecuniary support, and defined what

* Speech in the House of Commons, March 8, 1843.

she required of her office-bearers. Among these documents were the following: two Protests before and after the Disruption; an address by Dr Chalmers as Moderator of the first Free Church Assembly in 1843; an Act of Assembly in 1846 fixing the formulæ for office-bearers; the Model Trust Deed of 1847 for the congregational properties; Acts of 1851 and 1853 upon the standards of the Church; the form of mandate by presbyteries to their representatives in the General Assembly; and speeches by the leaders of the Church in 1843 or soon after. On these documents the questions raised by the case were two. Do they, along with the Confession of Faith, imply that the 'doctrine of Church Establishment' is an essential part of the Free Church creed? And do they contain the assertion or implication of her power to alter that creed by the processes of her constitution?

As to the first question, there can be no doubt about the profession of the Establishment doctrine by the founders of the Free Church. They had quitted the Establishment only after long struggles to realise their ideals within it. In the Westminster Confession they had carried with them an extreme statement of the duties of the State towards religion; and, though they repudiated 'the intolerant and persecuting principles' which that statement enforces, they continued to assert, at least down to 1851, that their Church 'holds and through God's grace will ever hold that it is the duty of civil rulers to . . . promote and support the Kingdom of Christ.*' They declined to unite with those Voluntary Presbyterians with whom they agreed on every other point of doctrine; and nowhere more strongly than in Dr Chalmers' address as Moderator in 1843—which some of the judges have read as a kind of 'prospectus' of the Free Church in her appeal for funds—did they insist on the distinction between the Voluntaries and themselves. But it has been argued that the documents in question nowhere define the Establishment doctrine as fundamental to the Church. Her difference from the Establishment, her distinctive and essential note as a separate Church, lay not in such a doctrine, but in her assertion of spiritual independence. Dr Chalmers immediately modified the distinction he

* Authorised Report, 95.

had drawn between his Church and the Voluntaries, and six weeks later asserted that 'there was no insuperable barrier in the way of an eventual, and he hoped a speedy, incorporation.' Other leaders declared the Establishment doctrine not only a mere theory, but destined to remain so.* Moreover, it has been argued that, as the whole Church, Established and Free, no longer pressed the doctrine to the extremes of the Confession of Faith, so it was open to the Free Church, as she proved her ability to support herself, to reduce her application of the theory still farther, and limit it to those general duties of the State to religion which fall short of Establishment and endowment. In other words, were not the possible applications of the Establishment doctrine so many, and so dependent on political circumstances beyond the Church's control, as to make it impossible to consider that doctrine, however strongly she professed it, essential to her constitution?

The second question on which the documents were used as evidence has a wider scope. Doctrinal change did not enter into the official outlook of the early Free Church. Its members had been the evangelical majority in the Establishment; and much of their hostility to their 'Moderate' opponents was inspired by the doctrinal breadth or alleged laxity of the latter. Such a tone developed in the Free Church. She came to be regarded, and regarded herself, as a Church of superlative orthodoxy. Although Chalmers himself and one or two others might remember the possibility of doctrinal changes, to the consciousness of the Church as a whole this was not yet a question of practical politics. Hence the absence of any defined claim to the power of making such changes. Yet there was the phrase 'the whole "power of the keys."' There was the Westminster Confession, which was not only regarded as 'a subordinate standard,' but itself contained the admission that 'all synods and councils,' therefore its own authors, 'may err, and many of them have erred; therefore they are not to be made the rule of faith or practice, but to be used as a help in both.'† There was the question, how far the Church of

* Quoted by Lord Macnaghten, *Authorised Report*, 577.

† Chap. xxxi; Clause iv.

Scotland had asserted the power to legislate in matters of doctrine by the adoption of Knox's Confession in 1560 and of the Westminster Confession in 1647. There was the Barrier Act of 1697, which at least seemed to assume the Church's right to make doctrinal change, by providing, in order to prevent 'sudden innovations in either doctrine, worship, or discipline,' that all 'overtures' on these subjects should first be submitted to the consideration of the presbyteries of the Church; and only then, 'if the general opinion' be found to approve them, should be passed as Acts of the Church. Was this a mere procedure Act, or one enabling the Church to legislate on doctrine? However the logic of the law might interpret the terms of this Act, there is no doubt that the Disruption fathers claimed the liberty which it seems to imply, though they did not explicitly affirm this till later. In 1866 the Moderator of the Church, Dr Wilson, one of her great theologians, Dr Fairbairn, and one of the most conservative of her ecclesiastics, Dr Gibson, claimed for the Free Church freedom to revise, or even, as Dr Wilson said, to abolish the Confession.*

Believing, then, in the Establishment doctrine, but without formally defining the rank she gave it among her articles, believing in her spiritual independence, but without asserting, in any of the titles by which she held her property, that it included the right to legislate on doctrine, the Free Church passed on her career. Throughout this she came under two influences which inevitably affected her attitude to the tenets with which she had started. One was her experience of the success of practical voluntarism. Under this her likeness to those Presbyterians who were theoretical as well as practical Voluntaries grew with every year, till in 1863 she unanimously opened negotiations for union with them. On the other hand there were at work on the mind of the Church the general intellectual influences of the age, till at last doctrinal change pressed upon the consciences of many of her ministers and members as a necessary relief from the rigorous statements of a Confession adapted to intellectual conditions which had long passed away. The rise of the new Biblical criticism had much

* Report of Proceedings of General Assembly, 1866.]

to do with this restlessness, for in the Robertson Smith case the Free Church bore the first brunt of the critical controversy. But as the supporters of the new views of the Bible did not demand the alteration of the Confession, whose articles on Scripture are wide and were not drawn up with reference to modern criticism, the results of the critical debate have not entered into the case before us; though, as we shall see, they have much inflamed the controversy between the parties to the case. The doctrine on which the mind of the Church required some relief from the uncompromising logic of the Confession was that of predestination. And it is the modifications which the Free Church has ventured upon in regard to this, as well as in regard to the doctrine of the establishment of religion, that have cast doubts upon her legal identity, and brought her before the courts of law.

For the Free Church, in changing her official mind on these doctrines, was not able to carry all her people with her. After the opening in 1863 of negotiations for union with the Voluntaries, a division arose as to whether the Church could enter such a union consistently with her theories of Church and State. Large majorities in successive Assemblies voted for the union, but were confronted by the threat of an influential minority, fortified by the opinion of counsel, to carry the matter to law. The project of union was, for the time, abandoned. Yet in abandoning it, the Church restated her attitude to the Establishment doctrine so as to indicate the change produced on her mind by her experience of practical voluntarism. While including among the duties of the State 'the furthering of the interests of Christ's religion,' she did not mention, as in 1851, either the establishment or endowment of the latter.* By 1873 there was obviously a growing majority of the Free Church which regarded the Establishment doctrine as an open question.

The next modification of her creed by the Free Church was made in 1892, when she passed an Act 'Declaratory' of the Westminster Confession. Here are some of the clauses of the Confession, touching predestination, which the Act affected:—

'God, from all Eternity, did, by the most Wise and Holy

* Act of Mutual Eligibility, 1873.

Counsel of His own Will, freely and unchangeably ordain whatsoever comes to pass, yet so as thereby neither is God the Author of Sin, nor is Violence offered to the Will of the Creatures, nor is the Liberty or Contingency of Second Causes taken away, but rather established.

‘Although God knows whatsoever may or can come to pass upon all supposed Conditions, yet hath He not decreed anything because He foresaw it as future, or as that which would come to pass upon such conditions.

‘By the Decree of God, for the Manifestation of his Glory, some men and angels are predestinated unto everlasting life, and others fore-ordained to everlasting death.’ (Westminster Confession, Chap. iii, Clauses i-iii.)

Certain phrases of the Declaratory Act are said to have fundamentally modified the Confession.

The Act emphasises, ‘as standing in the forefront of the revelation of Grace, the love of God . . . to sinners of mankind,’ and declares that ‘all who hear the Gospel are warranted to believe to the saving of their souls,’ and that, if any reject God’s call, the sin is their own. The Confession is not to be regarded as ‘teaching the fore-ordination of men to death irrespective of their own sin’; nor as teaching that any who die in infancy are lost, or that God may not extend His mercy to those who are beyond the means of grace.

With regard to the Establishment doctrine, the Act disclaims ‘intolerant and persecuting principles’; and more generally declares that the Church

‘does not consider her office-bearers in subscribing the Confession of Faith committed to any principles inconsistent with liberty of conscience and the right of private judgment’; and that ‘while diversity of opinion is recognised on such points in the Confession as do not enter the substance of the Reformed Faith therein set forth, the Church retains full authority to determine, in any case which may arise, what points fall within this description, and thus to guard against any abuse of this liberty, to the detriment of sound doctrine, or to the injury of her unity and peace.’

The questions raised by the case on this are the following: Does the Act’s interpretation of the Confession’s doctrine of predestination modify or contradict the latter? And are the general powers which the Act

assumes for the Church, to determine what is and what is not 'of the substance of the Reformed Faith,' not really beyond the Church's constitution? If so, did she not, by passing the Act, lose her identity with the Church of 1843? A few of her members in 1892 said that she did, and, withdrawing themselves, founded 'The Free Presbyterian Church of 1843.' That Church still exists, but its members were not the appellants in the recent action. In 1892 these appellants dissented from the Declaratory Act; but, as it did not involve questions of property, and as its provisions were made permissive, they remained in the Free Church.

In 1896 the Free Church again raised proposals for union with the United Presbyterians; and, after three years of negotiations, a plan of union was prepared. The standards of the two Churches were the same; but, as the United Presbyterians had in 1879 passed a Declaratory Act, not only permissive like that of the Free Church, but compulsory, and as they had, to put it broadly, departed from the Establishment doctrine farther than the Free Church had done, provision was made in the plan 'that members of both Churches shall have full right to assert and maintain the views of truth and duty which they had liberty to maintain in the said Churches.' There can be no doubt that these words reserved the right to such members of the Free Church as held the 'Establishment doctrine' to continue to hold it after their Church's union with Voluntaries. But such a provision exposed the Free Church to a double attack. For either she retained her doctrines, and her opponents could plead that the union with Voluntaries was not a real union, or she abandoned some of her doctrines. The second of these alternatives became their chief charge against her. The Plan of Union was passed in 1899, and, under the Barrier Act, remitted to the local presbyteries. Seventy out of seventy-four having approved, it was passed as a Uniting Act in the Assembly of May 1900, by 593 to 29. The same Assembly transmitted to presbyteries the 'overture' that the union now take place. Seventy-one presbyteries approved; and this was passed as an Act in the Assembly of October 1900, by 643 to 27. The same Assembly decreed that the property held by the General Trustees should be conveyed to new trustees

to be appointed by the United Free Church. On the following day the union was completed.

The minority, who asserted that they were the only part of the Free Church faithful to her principles, continued to sit as her General Assembly, and appealed to the law to restore to them her property. The case was first heard in 1901 by Lord Low, sitting in the Outer House of Session, who decreed in favour of the United Free Church; in 1902, by the Lord Justice-Clerk and Lords Young and Trayner, sitting in the Inner House, who confirmed the judgment of Lord Low; in 1903, by the House of Lords, before six judges, and again in 1904, in consequence of Lord Shand's death, before seven judges—the Lord Chancellor, Lords Macnaghten, Davey, James of Hereford, Robertson, Lindley, and Alverstone; who, by five to two, reversed the decision of the Scottish Courts, and assigned the property to the Free Church minority.

Lord Low found that the Barrier Act assumed the right of the General Assembly to decide on non-essentials, and, more generally, that some such power was necessary to the Assembly, because the Confession of Faith was capable of various interpretations. The Establishment doctrine, though so strongly held by the early Free Church as to prevent her union with Voluntaries, was nowhere defined in her documents as essential or unalterable; and, being in itself a doctrine capable of many interpretations, had come to be regarded by the Free Church, under her experience of practical voluntaryism, as an open question. This was all that was required to bring her into line with the United Presbyterians; her union with whom did not, therefore, imply the surrender of her essential doctrines. The Lord Justice Clerk was prepared to decide the case on this ground alone—that the existence at intervals of the Church of Scotland, even before 1843, in separation from the Establishment, and the Free Church's experience of practical voluntaryism after that date, proved that the Establishment doctrine was 'not vital to the existence of the Church.' Moreover, the Barrier Act assumed the right of the Church to regard such a doctrine as an open question. Lord Young took wider ground. In his view, since there is no rule of law to prevent a dissenting Church from changing her creed, the only legal question which can arise about

her property is whether this is held under a limited title—that is, whether it is expressly attached to specified doctrines. But no such title has been referred to in the case. The property is vested in General Trustees, who were appointed to hold and use it as directed by the Assembly. Lord Trayner decided that the Free Church had by the Declaratory Act made no change in the essentials of the Confession; and that, though she had altered her attitude to the doctrine of the civil Establishment of religion, this was neither essential to her constitution, nor so defined in her documents. As for the doctrine,

‘it appears to me difficult’ (he said) ‘to hold that a mere opinion as to what some third person was bound to do, which he might neglect or refuse to do, and which the Church could not compel him to do, could in any way be an essential part of the constitution of the Church.’

As a matter of fact, the Free Church’s practical voluntarism had led her to treat the Establishment doctrine as ‘a dead letter.’ If, however, it had ever been regarded by the Church as fundamental, she from the first, by her Deed of Demission and the Barrier Act, had powers to change her doctrines.

The Scottish judges did not define how far these powers extended. Lord Low held that the General Assembly could not repudiate either the Confession or Presbyterianism; while Lord Trayner was not prepared to say that Presbyterianism, and even the doctrine of Christ’s divinity, might not be covered by the Barrier Act. But at least they recognised powers inherent in the Church’s constitution to change her opinions as to Establishment, and admitted further that it was natural and even necessary for her Assembly to possess such powers, because both the Confession and in particular the Establishment doctrine were capable of various interpretations. And it is to be noticed—the point will recur—that all these Scottish judges emphasised the Free Church’s experience of practical voluntarism as ‘naturally’ modifying her theories of Church and State.

We may take next, for the sake of clearness, the opinions of the two Lords of Appeal who agreed with the Scottish judges. Lord Macnaghten complained that the Establishment doctrine had bulked too large in the

argument, and defined the main question as that of the character of the Free Church as a whole. Had she come out in 1843 'with peculiar tenets cut and dried and defined in the precise language of a conveyancer,' or as retaining all the powers of a National Church? She was the latter, gaining, through her independence of the State, liberty to alter her formulæ of subscription. Though the doctrine of Establishment is embedded in her Confession, her powers as a National Church to change her doctrines covered this also. She exhibited a diversity of opinion about it immediately after the Disruption. Dr Candlish and other leaders called it purely theoretical; and, as her practical voluntarism developed, the 'natural tendency' must have been to believe that the Church of Scotland could exist not only without an Establishment, but without a profession of the Establishment principle. Lord Lindley, from the Confession of Faith, the Barrier Act, and the early documents of the Free Church, concluded that she had powers (within limits and only to be used *bona fide*) to alter or replace her Confession, which powers were as fundamental to her constitution as any of the Confession's doctrines; and since then she has not only fulfilled her spiritual functions without state aid, but seen the failure of her attempt to obtain this while repudiating state control. The Model Trust Deed affirms the whole 'power of the keys,' which includes control over doctrine, contemplates union with other bodies, and subjects the trustees to the direction of the General Assembly of the Free Church, or of any united body which she may enter.

Lords Macnaghten and Lindley were thus at one with the Scottish judges on the legislative powers of the Free Church, on the absence from her trust-deeds of specified titles, and on the 'naturalness' of her modification of the Establishment doctrine. Lord Macnaghten indeed pitches the argument more loftily. To him the 'real and only question is':

'Was the Free Church, by the very condition of her existence, forced to cling to her Subordinate Standards with so desperate a grip that she has lost hold and touch of the Supreme Standard of her faith? Was she from birth incapable of all growth and development? Was she, in a word, a dead branch and not a living Church?'

These arguments, rising to so lofty an issue, were met by the majority of the House of Lords with, in the first instance, an appeal to the legal authority of that Court. In 1813, in another Scottish Church case, *Craigdallie versus Aikman*,* Lord Eldon had laid it down that, if there was no provision for a schism in the title-deeds by which a congregation for religious worship held their property, the law would not execute the trust, 'at the expense of a forfeiture of their property by the *cestui-que-trust*, for adhering to the opinions and principles in which the congregation had originally united.' In another case† the same authority had decreed that it is not in the power of individuals having the management of a religious institution at any time to alter the purposes for which it was founded.

'In such a case . . . when a congregation become dissentient among themselves, the nature of the original institution must alone be looked to as the guide for the decision of the Court; and to refer to any other criterion, as to the sense of the existing majority, would be to make a new institution, which is altogether beyond the reach and inconsistent with the duties and character of this Court.' (A.R. p. 579.)

Accepting this as law, the five judges found in fact that the majority of the Free Church had abandoned tenets once professed by her as fundamental; that her documents nowhere conferred on them the power to do so; that they had broken trust in conveying her property to another body. In reaching these conclusions, it was only Lords Halsbury, Davey, and Robertson who decided that the Declaratory Act was an illegitimate modification of the Church's Confession. The judgment of the Court must therefore be considered as based solely upon the change in the attitude of the Free Church towards the Establishment doctrine. All five judges agreed that this was enough to disinherit her; for they held the doctrine to be essential to her constitution, and interpreted neither her claim to spiritual independence nor any of her formal Acts as covering the right to alter it. They read the Barrier Act as one only of procedure, and thought it not

* Authorised Report, pp. 87, 195, 365, etc.

† Attorney-General v. Pearson, quoted by Lord Davey, Authorised Report, p. 579.

plausible to suppose that at the date of the Act the Church intended either to change her faith or to permit it to be changed. But, above all, we must notice that the five judges laid stress on the fact that the majority of the Church, by conveying her property to a body, many of whose members denied the Establishment doctrine, thereby dispossessed of it a remnant of her own members, 'whose only fault' had been to adhere to the doctrine.

The gravity of the differences which these opinions exhibit must arouse in all intelligent persons a desire to understand how, with equal profession of adherence to the law of trusts, and with the same facts before them, these able judges should have reached such opposite conclusions. Such a desire is not to be confounded with that discontent which would seek to reverse the recent decision. The Supreme Court has spoken: there is no appeal. Nor would we encourage the complaint, which has risen in Scotland, as to the constitution of the Court. Five out of the seven judges of appeal heard the pleadings twice, and the opinions of the majority give evidence that they paid full attention to the judgments of the Scottish Courts, and felt they could differ from these only after a more than usually elaborate explanation of their own views. Nor is the examination of the judgments that we have in view one of mere academic curiosity. The elements of the case on which the judges differed affect all the Churches, as well as the general liberties of our organised religious life, so closely that we must attempt to analyse them.

The judges all agree that a religious association is bound with regard to its property by its principles of union, and subject to the law of trusts. They agree as to what documents supply the evidence in the case of the Free Church. They agree further that these show the Free Church to have at first held strongly to the Establishment doctrine, and afterwards to have come to regard it as an open question. But there they diverge, and mainly upon three questions. The first is that of the interpretation of the evidence and the estimate of the relative value of its several parts, on all points except the two facts we have just mentioned. With regard to the rank held by the Establishment doctrine in the constitution of the Free Church, and the degree to which

the profession of it by her founders led donors to bestow funds upon her, the majority laid particular emphasis upon Dr Chalmers' address as her first Moderator, and its incisive distinction between the Free Church and the Voluntaries. The minority paid respect to other addresses in which Dr Chalmers qualified that distinction, and those in which his colleagues emphasised the merely theoretical character of the Free Church's doctrine of Establishment. On the doctrine itself the difference among the judges was similar. The majority held it to have been a definite doctrine and of equal rank in the Church's view with that of spiritual independence; the minority held that it was vague, and dependent for its possible applications on circumstances beyond the control of the Church herself. Similarly again with the power of the Free Church to change her doctrines. The majority did not find this power either in the adoption by the Church of Scotland of her successive Confessions, nor in the Barrier Act, nor in the whole 'power of the keys'; while the minority deemed that those Acts did assume the Church's right to legislate on doctrine. All these differences are differences in reading and assessing evidence. It may be held that the majority were wrong in emphasising Dr Chalmers' address, wrong in not paying equal respect to the other documents which qualify it, wrong in their interpretation of the Establishment doctrine, and wrong in their reading of the Barrier Act. But these are points upon which individual minds will always differ; and in the absence of a definite instrument of constitution by the founders of the Free Church, and in face of the long and careful arguments of the judges, there is no use in further contesting the conclusions of the majority.

But these differences in the judicial interpretations of the evidence were enhanced by two others. The Scottish judges and the minority of the Court of Appeal emphasised the influence of the history of the Free Church upon her original tenets. They said that her experience of practical voluntaryism 'naturally' modified her doctrine of religious establishment, and legitimately brought her into line with the theoretical Voluntaries. The majority either ignored this influence, or, like Lord Robertson, ruled it out of court as not bearing on the

question of what doctrines the Church started with; for by these alone could her identity be determined. But, thirdly, the difference as to the legitimate influence of the Church's history was only one aspect of a deeper and more fundamental opposition of opinion. This lay in the judges' conception of a Church. The Lord Chancellor said that 'the identity of a religious community described as a Church must consist in the unity of its doctrines.' The others did not so absolutely express the opinion, confining themselves to the argument that the Free Church in particular had no power to change. Yet all of the majority, by tying the legal rights of the Free Church for ever to her early views, in the absence of any definite legal title to her property which reserved to her the power to change, and Lord Robertson, in particular, by refusing to allow her experiences as a living Church any valid influence in affecting these views, were governed by virtually the same conception of a Church as the Lord Chancellor.

!On the other side are Lord Macnaghten's opinion that the absence from the Free Church documents of a legal instrument empowering her to change her doctrines is no proof of her disability to do so; and his affirmation that the sole question to be decided is, Was the Church 'from birth incapable of all growth and development? Was she a dead branch and not a living Church?' Lord Macnaghten answered these questions thus:—

'I cannot form a conception of a National Church, untrammelled and unfettered by connexion with the State, which does not at least possess the powers of revising and amending the formula of subscription required of its own office-bearers, and the power of pronouncing authoritatively that some latitude of opinion is permissible to its members in regard to matters which, according to the common apprehension of mankind, are not matters of faith.'

That is to put the one conception of the Church as absolutely as the Lord Chancellor put the other.

The two conceptions lie at the root of, though they by no means exhaust, the differences of judicial opinion on the case. The Scottish Courts were guided by the wider view; but in face of Lord Macnaghten's agreement with them, and Lord Robertson's adherence to the narrower,

it is erroneous to confine these conceptions respectively to Scotland and England. No doubt the idea of spiritual independence is more familiar to Scotsmen than to Englishmen, whether lawyers or churchmen. It has been a high and constant note in the testimony of the Scottish Church, whether within or without the Establishment, rising so clear above the local and temporal issues of her controversies as to form the distinctive and recognised contribution of Scotland to the Catholic Confession of Christendom. Nor do we think that the majority did justice to it, so far as they entered, like Lord Robertson, on an examination of the general feelings of Scottish theologians as of value in interpreting those Acts which may be held to be ambiguous in their expression of the powers of the Church. No one familiar with the history of Scotland from the Reformation onwards can doubt that, although her theologians in the sixteenth and seventeenth centuries were as adverse to theological change as the Lord Chancellor and Lord Robertson have described them to be, they nevertheless would have disclaimed the conception of the Church entertained by these judges and sympathised with that so boldly expressed by Lord Macnaghten.

Apart from this, we desire to point out that this wider conception of the Church is not merely Scottish. It is asserted and acted upon by most of the parties in the Church of England, and by all the vital and progressive Nonconformist Churches. Not for denying such fundamental matters as the authority of Scripture or the divinity of Christ, but for qualifying her views on the duties of the State towards religion, and (so far as the Lord Chancellor's judgment goes) for restating her doctrine of predestination with the single purpose of making more clear and open God's offer of salvation to all mankind, and for reserving to herself the right to say what constitutes the sum and substance of her Confession, a Church whose distinctive note has ever been that of spiritual independence, and which had no special doctrines attached to her trust deeds, has been arraigned by the law and mulcted of its property. A theologian so personally unaffected by the result as the Bishop of Worcester, and so satisfied with the formulæ of his own Church as an expression of divine truth, has emphasised the danger

involved in such a decision to all spiritual liberty and religious thinking. We do not think he is alarmed without cause. It is not merely the liberty of a Church's theology to grow under the general intellectual progress of the age which is threatened by the judgment of the House of Lords. It is also the freedom of a Church to profit by her own practical experience of the working of such theories as that of Church and State, in which no essential doctrines of Christianity are involved. The Lord Chancellor disclaimed the intention of the Court to interfere with a Church's doctrinal freedom; Lord Davey expressed his sympathy with the endeavours of men of 'great intelligence and sound learning to escape from the fetters forged by an earlier generation'; and all the five judges asserted that their judgment touched only the Church's property. But when that property is the means of a Church's work, her clothing, and her tools, the distinction drawn by their lordships may be logically sound, but disappears in practice. They may not have interfered with the Church's spiritual independence *in vacuo*; but it is not *in vacuo* that a Church can grow or avail herself of the profits of her experience.

The gravity of the question concerns even more than the Churches, as, indeed, appears from the conversations of their lordships with Mr Haldane. The modern State recognises the right of the individual to modify his beliefs without danger to his life, his civic rights, or the property he has gathered and holds in his own name. But it seems that this is a liberty still denied by the law to associations of individuals. They may not have tied their property by limited titles to this or that belief. They may hold it simply and generally in their own name. But if they have not achieved the impossible by anticipating their mental growth, and defining what powers to change their opinions they reserve to themselves, the law, in questions of their property, will treat them only as commercial companies, or financial trustees under 'the dead hand.' The law will allow an association to think and to grow; it will even allow its members individually to proclaim to the world the mental changes involved in such growth; but, as soon as it makes an official declaration, if but a single member, because he has not grown, claims the whole

property on that ground, the law, no matter how much the property is bound up with the usefulness of the association, will take it from the latter, and, no matter how little the solitary member is capable of administering it, will assign it to him.

This theory, by which the majority considered themselves bound, denies practical reality to every kind of voluntary association except the State itself. And yet such associations, religious and other, actually do exist, and grow only upon the precisely opposite conception of their rights. They perform works beneficent to the community and necessary to the State itself; but, on the theory of the judges that they are not real personalities, and in possession of the rights which each of their individual members enjoys, they may at any time be deprived of their legal identity. It is many years since prescient minds, holding no brief for the Churches, or even, like Renan, sworn foes to Ultramontanism, have foretold that the greatest practical problem of future politics would be some method by which the State might recognise the reality of societies within itself and yet independent of it. Such a recognition already prevails in philosophy, and is, as we have said, everywhere acted on in practical life. Yet, so long as it fails to penetrate the august fastnesses of the law, every voluntary association of citizens, however nearly unanimous it may be in the desire to profit by the intellectual advance of mankind or its own practical experience, is exposed to the same arrest and confiscation of its property as has happened to the Free Church of Scotland.

That this danger has been widely recognised appears from the many proposals for its removal which have been made throughout the country even in the few weeks since the decision of the Lords revealed it. But each one of these proposals is encumbered with difficulties. The hope has been expressed of a change in the attitude and temper of the law itself, and has been based on the ground that two judges so eminent as Lords Macnaghten and Lindley have equally with the majority accepted the law of trusts, and yet found nothing to conflict with it in their wider conception of a Church. Yet such a hope has to face the opinion expressed by one of the majority—and it is an opinion not likely to grow less among

lawyers—that it would not be safe, with respect either to the sanctity of the law of trusts or to the security of religious associations themselves, to allow to the latter the freedom which the Free Church has claimed. Then there is the proposal to ask Parliament to modify the law of trusts in the case of Churches. But this would have to encounter not only the opposition of many of the legal lords, but not a few nor slight religious prejudices on the part of other members of Parliament, either with strong views on the unchangeableness of the doctrines of their own denomination, or with equally strong jealousy of the freedom of others. Another way out of the difficulty is for religious bodies to alter their existing titles by introducing into them terms allowing powers to a majority of the members to change their doctrines. But this could not be done by Churches already in existence unless their members were unanimous and could induce Parliament to sanction an alteration of their present titles; while new provisions, even when most carefully drawn, would still be subject, if the present theory of the law prevails, to the most rigid interpretation by the courts.

From such problems of religious liberty and growth in general we turn to the questions of equity which the case before us has raised in reference to the Free Church of Scotland. So pressing are these that one of the majority of the judges, Lord Davey, has lately taken the unusual course of allowing his opinion about it to reach the public through the press.* The judges were agreed that about 1870 the Free Church had modified her early views on the Establishment doctrine, and that from this time onwards not only was that doctrine regarded by her as an open question, but an increasing majority of her members had set their faces towards union with the Voluntaries. Now, of the invested funds of the Church which have been affected by the judgment of the Court a very large proportion was contributed after 1870. The judges treated the property of the Church as indivisible, and altogether tied to her early views of the Establishment doctrine. Lord Robertson said:—

‘Regarding the whole of the property now in dispute, I

* ‘Times,’ September 26, 1904.

cannot see how, in law or in fairness, a majority of the men who acquired it on the representations made in the "Affectionate Representation" [Dr. Chalmers' address in 1843], could have been allowed, say in 1850, to carry off the property to the Voluntaries. . . . And after all the argument we have heard, I have discovered no reason which makes that fair and lawful in 1900 which would not have been so fifty years earlier.' (Authorised Report, p. 603.)

The answer to this is that 'the whole of the property' was not 'acquired on the representations made' in 1843 either in Dr Chalmers' address or those of others. Of the million and a quarter sterling of invested funds, which came into the present case, only some 18,000*l.* had been given to the Church by 1850. In 1863, when negotiations for union began, this capital was still only 92,000*l.*: in 1872 it was 249,000*l.* Then, after the Establishment doctrine had become an open question in the Free Church, it rose in ten years to 593,000*l.*, and by 1900 to the 1,220,000*l.* now in dispute. Many of the donors of the three quarters of a million gifted since 1873 were persons who either favoured the union with the United Presbyterian Church or lived to enter it in 1900.

What is thus true of the funds vested in the General Trustees is also true of the congregational property. For instance, in the Presbytery of Glasgow, a few years before the union, the sum of 137,000*l.* was raised for the building of churches chiefly in the new industrial suburbs; but of that sum only fifteen guineas were subscribed by members of the minority of the Church, to whom the House of Lords has assigned both the general and the congregational property. The Lord Chancellor said it was the duty of the Court to bear in mind 'what the donors of the trust fund thought about it, or what we are constrained to infer would be their view if it were possible to consult them.' If the pleadings in the case, rightly or wrongly, did not argue for an equitable division of the funds, but were confined to questions of the identity and powers of the Church, and if the law, as laid down by Lord Eldon, obliged the judges to attach the whole property in question to the early views of the Church, nothing remains to be said as to the legal justice of the decision; but it is clear, from the fact that the donors of so large a part of the property favoured the

union, that in equity their intentions should be consulted. Lord James may have been moved by this consideration when he expressed 'the sincere hope that some way will be found to avoid the capture by either litigants of any spoils of war.' And Lord Davey, in his letter to the 'Times,' stated that, while he still regards the recent decision as inevitable in law, he 'would have heartily welcomed any proposal which might have been accepted by both parties' to arrange for each congregation

'to retain its own property, and by vote of the members to join either one party or the other; and that then commissioners be appointed . . . to divide the general property, having regard to number of members, number of congregations, and any other considerations affecting the question.'

The judges have thus laid the responsibility of relieving the obvious inequitableness of the effects of the law upon the litigants themselves. More than two months have passed in which these have been eagerly studying the situation. The commissions of both General Assemblies have met; their advisory committees have been in frequent session; public and congregational meetings have been held up and down the country; and the newspapers have been full of criticism and advice. As was to be expected, the difficulties both of principle and detail have increased the more they have been studied. There has been some impolitic speaking on both sides, and still more provocation in the uncharitable criticisms of outsiders. Yet on the whole the temper of the two Churches has been good, considering the exciting nature of the situation; and both appear anxious to let the religious interests in each other's keeping suffer as little as possible. It is equally clear, however, that, were all the good will in the world available, it cannot remove certain difficulties created alike by the facts, the law, and the religious convictions of both Churches. If, for any reason, the small body adjudged to be the legal owners of the Free Church property were willing to resign to the United Free Church as much of it as they cannot profitably use, it is clear that they feel themselves debarred, not only by the fact that the conveyance of the property to that Church has already been pronounced a breach of trust by the Courts, but by the conviction (of at least some of them) that they might

thereby betray the doctrinal interests for which they believe it was originally given. On the other hand, they are plainly incapable of carrying on the religious work bound up with so enormous a trust. For that work depends only in small part on the trust funds, and requires the labour and annual liberality of a very much larger membership than the small Free Church can ever hope to attract. Therefore the resolution of the United Free Church to cling to as much of the property as possible is as deserving of respect, to say the least, as the convictions of her opponents that she is theologically unworthy to hold it.

It is not mere money that was in question before the Courts, or that the United Free Church is now unwilling to give up, but the means of doing the religious work entrusted to her, and so successfully carried on. It would have been simple enough for her to resign the million and a quarter sterling in the hands of her General Trustees, and not difficult to replace it from the liberality of her members; although, as that property includes three theological colleges, three institutions for the training of day-school teachers, and a number of mission institutes in eight different countries, we do not see how the Free Church, with one theological professor, three or four students, no trainers of teachers, and not one missionary, could possibly discharge even this portion of the trust. But when it comes to resigning about eleven hundred churches and manses, and leaving them for the most part to stand empty (for the Free Church, with some thirty ministers, could not possibly fill them) while she herself built new churches and manses for the congregations that have already with almost complete unanimity decided to adhere to the union—all that would not only mean a task beyond the resources of the United Free Church for many years, but would imply a multiplication and a waste of ecclesiastical buildings at which the sense of the nation would revolt.

It is for these reasons that Lord Davey's suggestions of arbitration between the parties are to be welcomed. Indeed the United Free Church, at the first conference between her representatives and those of the Free Church, produced proposals for this, moderately conceived, and recognising the full legal rights of the victors in the case. Unhappily the Free Church, for the reasons we have given above, has declared itself unable to accept arbitration at

present. Its representatives claim time. They say they cannot prove their strength till the property is in their hands; and they hope that in the new situation created by the judgment many who entered the United Free Church may return to them. As yet, they have failed to withdraw a single minister from that Church. To appoint, as they have done, theological lecturers from three other churches is only to betray their own inability to fulfil the trust. Seventy of their ministerial charges are still vacant. Even if they succeed in attracting a few thousand more members, how are they to minister to them, and how, even with such an addition, can they support the Church's work at home or abroad, which depends on annual subscriptions? It is therefore as much in their own interest as in that of religion at large that the arbitration, which must surely come at last, should be made possible at once. If a few just men, outside both Churches but in sympathy with religion, were appointed, on the understanding that they were to take into consideration (1) the legal rights of the Free Church, (2) the inequitableness of the situation arising from the fact of so much of the property assigned to her having been bestowed by donors who approved of or entered the union, and (3) the needs of the work to be carried on and the respective fitness of the two parties to do this, a scheme of division, we feel sure, could be arranged which, having received the consent of the two Churches, could hardly fail to be sanctioned by Parliament. It would be hazardous to go to Parliament without the consent of both the interested parties. But such a direct appeal will be necessary if the Free Church, while its inability to fulfil the trust becomes more and more manifest, persists in declining arbitration in spite both of public opinion and the advice of two of the judges who were favourable to her. Such a result, with the litigation which it would necessitate, would indeed be deplorable.

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